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ARTICLE VII.

TREATMENT OF UTERINE TUMORS.

BY WM. H. BYFORD, A.M., M.D., Prof. of Obstet., &c., Chic. Med. Col.

The surgical treatment of uterine tumors is always difficult, sometimes dangerous, and often fruitless in its results. The inaccessible position of them, their proximity to important organs, and the want of proper knowledge of them, may account for these facts. Anything, therefore, that gives reasonable hopes of simplifying their cure, should commend itself to the attention of the profession. Of the modes now used, two seem to occupy the attention of the profession almost exclusively. One mode is to cut and extract them wholly from their bed in the tissue, and the other is to partially remove or destroy them, and depend upon disorganizing inflammation to finish the process of removal. A simpler method is to excite inflammation in them and depend upon it for their disintegration and elimination. This idea has been acted upon, and one case is reported by Prof. SIMPSON as being successful. It will be recollected that he punctured the investment of the tumor and slightly penetrated it with caustic potassa, which caused inflammation, sloughing, and evacuation of its substance. There is naturally a feeling of repugnance and fear in most minds against the use of this potent remedy for such purposes. I think an efficient

and comparatively mild substitute for it, and one that gives less pain in its use, and which is not likely to spread inflammation to other tissues, and yet which excites this process where it is most needed, is found in the introduction of a foreign substance into the middle of the growth, and allow it there to remain until it excites disorganizing inflammation.

The mode of doing this is to insert a trochar into the substance of the tumor to its centre, when practicable, withdraw the stillette, pass the substance to be used through the tube, and hold it by means of a probe at the bottom of the perforation while the canula is withdrawn. In the course of a few days, inflammation will commence; disorganization, and after awhile, disintegration by suppuration and sloughing will cause the discharge of the substance of the growth.

The substance I have used is cotton wool; and I have in the two instances in which I have used it, previously to passing it through the canula, made fast to it a stout thread, so that it might be withdrawn if need be; but in neither case was it removed until washed away by the discharges. The tumor should be perforated through the vaginal or uterine canal, instead of through the abdominal wall.

Case I. Was a Mrs. G., aged 38 years, barren. She had been married twelve years. During the last four or five years she had been subject to more than the ordinary amount of sanguineous discharges. I was called to see her August 30th, 1863, when she informed me she had a polypus; that it had been removed once by a string and double canula, but in less than two months from the time of its removal it had, to all appearance, grown to be as large as it was before its removal. On making an examination, I found a tumor filling up a large distended uterus and implanted on its fundus, with no appearance of neck. It was nearly as large as a goose egg. After a few days, I removed as much as I could, which must have been two-thirds of it, with the ecrasseur. By the 1st of November, it seemed to have attained its former size. An examination of the portion removed showed it to be a specimen of the fibrous variety of polypi. On the 1st November, I plunged a trochar

into the centre of it, to the distance of one and a-half inches, and withdrew the stillette, leaving the canula in the tumor. I next secured a piece of cotton wool, by tightly tying a stout thread to it, oiled it, and passed it down to the bottom of the canula, and holding it firmly in position by a strong probe, left it in as I withdrew the canula over it. The cotton remained in its place for ten days or two weeks, when it came away with the fetid discharge that had before commenced. I felt tempted to reintroduce it, but the whole polypus was so flabby, and in a state of such decomposition, that I did not do it. In three months from the introduction of the cotton, the tumor had entirely disappeared, and my patient remains well. She has some leuchorrhea and tolerably profuse menstruation. The only local treatment used was soapsuds injections several times a-day, as a matter of cleanliness. During the first six weeks after the operation, the patient was troubled with considerable diarrhœa, pain, and slight fever, but was not seriously ill.

CASE II. Was that of Miss E., aged 29 years. She had been subject to severe hemorrhages at menstrual periods, and for two years they had become alarmingly copious, and she had been debilitated, despondent, and nervous. She was very anxious to be relieved, as she desired to marry. An examination revealed an intramural fibrous tumor, occupying the anterior portion of the uterus, apparently about the size of a hen's egg. It extended very low, so as to encroach upon the vaginal portion of the cervix anteriorly. I thought it a good opportunity to try the cotton plug, and, accordingly, used it in the following manner. After introducing a catheter into the bladder and drawing off the urine, and a probe into the cavity of the uterus, to be sure of the direction with reference to the bulk of the tumor, I passed a rather small trochar into the middle of the tumor from the vagina upwards, and through the canula a piece of cotton secured by a thread, and left it *in situ*, and directed the patient to remain quiet until I saw her again.

In about four hours, I was requested to see her, as there was slight hemorrhage, and she was very much alarmed about it. The patient was so much alarmed that I determined, with a

view to insure inflammation in the tumor, to pass some more cotton in the track of the canula. This I did through a speculum, with a stout probe, until it seemed pretty well filled up. Nothing further occurred, worthy of note, until about the fourth day. The patient then became feverish, and complained of pain, tenderness, and heat in the vagina. The parts were dry and hot; the pulse was about 100; the tongue white and dry, and there was some thirst. This moderate febrile reaction kept up for ten days, or two weeks, with varying degrees of intensity. During this time, about the sixth day, a sero-purulent discharge from the vagina began. It became more copious, and grew offensive; and on the tenth day, some of the cotton passed. This offensive discharge and feverish indisposition continued for about four weeks, and then slowly subsided. During this time, the treatment consisted of vaginal injections three times daily, quinine and sul. acid. There was so little inconvenience experienced in this case, that it seems hardly necessary to give a more circumstantial relation.

Other substances besides cotton may be used to excite inflammation in the tumor, and if sufficient destructive efforts do not follow the first introduction, a second might be attempted; and if still more irritation be desirable, the cotton might be dipped in tincture of cantharides, or other irritating fluid; or, following Dr. SIMPSON, a little caustic potassa passed through the canula and left in the tumor.

These cases and remarks are published with the view of encouraging a trial of some method similar to this, for the removal of tumors that cannot be taken out by the more summary process of excision. I think the treatment equally applicable to tumors elsewhere located, and of different composition; to any encysted tumor in which it is desirable to awaken disorganizing inflammation, and which is located in a place not accessible to the knife.

ARTICLE VIII.

THE RECENT INVESTIGATIONS OF RICORD AND OTHERS UPON THE SUBJECT OF SYPHILIS.

BY E. ANDREWS, M.D., Prof. of Surg. in Chic. Med. Col.

One of the most positive achievments in surgical pathology, consists in the rediscovery of the double nature of syphilitic poison.

It is satisfactorily proven by the investigation of RICORD and others, that the disease variously called soft chancre, chancroid, chancrelle, non-infecting chancre, &c., never contaminates the constitution, and is essentially different from the true infecting chancre of syphilis. The reasons of this conclusion I will briefly recapitulate.

First—as to the history of these diseases. It is a fact demonstrable, that while the non-infecting chancre, or chancroid, has been known from all antiquity, and is described and referred to by Hippocrates, Celsus, and others, there is nowhere a record or a trace of genuine syphilis previous to the time of its outbreak in Europe, just before the year 1500. For instance, the ancient writers rank the occurrence of painful suppurating buboes among the prominent symptoms of the venereal disease known to them, while in genuine syphilis, buboes are seldom prominent enough to attract much attention, and very rarely suppurate. The inflammatory suppurating bubo is a characteristic mark of the chancroid only. I have discovered in ancient history a curious little passage, which I have not seen referred to by any author, and which shows that troublesome inflammatory buboes were well known to the Egyptians, and supposed by them to date back beyond the days when the Israelites left that country under the lead of Moses.

The historian Josephus wrote two controversial treatises defending the Jews against the slanders of Apion, an Egyptian author. In the Second Book, he indignantly quotes Apion as giving the following account of the origin of the Jewish Sab-

bath, viz.: that after the Israelites left Egypt, they travelled six days towards Palestine, when they were attacked with buboes in their groins, on account of which they were compelled to stop and rest on the seventh day, being unable to march. Therefore, as the Egyptian name of a bubo was *Sabbo*, they called it the *Sabbath-day*, that is, *Bubo-day*. Josephus combats this etymology by saying that it is true that *Sabbo* in Egyptian signifies bubo, but that *Sabbath* is a Hebrew word, and means not *bubo*, but *rest*.

Hippocrates and Celsus were well acquainted with chancroids and suppurating buboes, but give no account of genuine syphilis. The writings of Solomon have been supposed to prove the existence of constitutional syphilis, because they plainly refer to some disease as causing the death of such men as resort to the houses of strange women. Solomon gives no description of this disease, but the tone of his language conveys the impression of some quick and rapid attack which brought the offender promptly to his grave. This corresponds to the sloughing form of chancroid which is especially prevalent in hot climates, and which often destroys life in a few days. I have seen two fatal cases of the same sort in this city. Genuine syphilis, on the contrary, is slow in developing, and wastes away the patient through years of suffering.

All ancient descriptions and refereneces, therefore, to venereal sores, seem to point to the chancroid only. This continued to be the case down to the year 1494, when about the time of the famous siege of Naples by the French, genuine syphilis made its appearance. It is a matter of history that the physicians of that day never confounded these two diseases together, but distinctly recognised their separate character. In their books the two are found treated of in separate chapters, the old disease, or chancroid, with which they had long been familiar, being clearly described, and often called Caries, *non Gallica*, to distinguish it from the genuine *Gallica* or French disease. They attribute no constitutional to the former, but give full prominence to the evidences of general infection of the system by the latter.

The fact that the medical world at that time, though long familiar with chancroid, never confounded the new disease with the old, is powerful evidence of the aspect presented by these two diseases to unprejudiced minds. But as the old generation of physicians died out, who had seen chancroid for years in an unmixed form, their successors gradually became confused by the constant occurrence of the two diseases together. Hence it happened that soon after 1520, the chancroid and true syphilis began to be looked upon as the product of the same virus, and continued to be thus described down to our own day.*

Diagnosis of these Diseases.—Much confusion exists in the minds of the profession on this subject, and some of our most eminent authors commit egregious blunders in their remarks upon it.

Chancroid, sometimes called soft chancre, has no distinct period of incubation, but commences at once to produce its effects, and in forty-eight or seventy-two hours is usually large enough to show its character. It consists, in its normal form, of a rounded ulcer with a flat base, which is sunk into the mucous membrane with distinct edges, as though a piece of membrane had been cut out with a rough punch. The floor of the ulcer is not red, but is covered with a whitish diphtheritic exudation, and bathed in pus. The tissues beneath the ulcer preserve all their normal softness, which is a very important point of distinction between this and true syphilis, or hard chancre. It is proper to remark, however, that the base of a chancroid may be made to assume a fictitious hardness by irritating applications, such as nit. of silver, &c. The chancroid has but little tendency to spontaneous healing, and if not treated, will often continue a year or more in the same patient. The pus of this ulcer is capable of reproducing similar ulcers to an indefinite extent by inoculation, either in the same, or in other patients. These inoculations have been practised to ah enormous extent, and the results of careful and extensive experiments show that the pure chancroid never produces the symptoms of secondary syphilis. The buboes which follow chancroid commonly involve

* See Bumstead on Venereal Diseases.

only one or two glands, and are very prone to inflame or suppurate, showing in that respect the same aplastic and suppurative character as the chancroid from which they sprang. Finally, the chancroid in aplastic constitutions is liable to assume a plagedenic, or even a gangrenous form, and sometimes causes the death of the patient within a few days, with symptoms of prostration and pyæmia.

On the other hand, genuine syphilis, in its pure form, presents the following symptoms: First, there is a period of incubation, which is seldom less than eight or ten days. The chancre, when formed, is smaller in size, and much less formidable in appearance, than the chancroid. The base is but little excavated, the floor is of a natural rosy color, without any diphtheritic exudation, and does not produce a particle of pus, unless the surface has been subjected to some irritating influence. The base and circumference of the ulcer are infiltrated with plastic lymph, so as to give a sensation of hardness to the touch. Sometimes, however, the induration merely exists in a very thin stratum, like parchment, under the ulcer, which can be felt by pinching it edgewise between the thumb and finger. In cases where the patient has been the subject of true syphilis previously, this symptom is often modified to such an extent that no induration whatever can be perceived, the chancre having the appearance of a mere abrasion of the mucous membrane. True chancre often heals spontaneously in a short time, leaving only the secondary symptoms to mark the progress of the disease. Its secretions when inoculated into the same patient are utterly inert, but will reproduce a true chancre on any other person who has not had the disease. Of those who have once had syphilis, only a small proportion—probably about one-fourth—are capable of having it a second time. The inoculated virus of a pure chancre never produces chancroid, nor does the virus of pure chancroid ever result in chancre. The buboes of chancre are usually numerous, show but little tenderness or inflammation, and very rarely suppurate. They manifest the same indisposition to produce pus which exists in the chancre from which they sprung. Finally, chancre seldom or never as-

sumes the phagedenic form; but in probably every instance it more or less infects the constitution, and, unless treated, its usual course is to produce, one after another, the symptoms classed as secondary and tertiary syphilis. It has been proved that blood, and also other fluids drawn from a patient laboring under the so-called secondary syphilis, even at a distance from the chancre, is capable of producing syphilis by incubation; a point of extreme importance as bearing on the proper selection of wet nurses and vaccine scabs. It also suggests caution to surgeons operating on contaminated patients.

Placing these two sets of symptoms in parallel columns, we see the ground of diagnosis very clearly:—

CHANCROID.	SYPHILIS.
Has no period of incubation.	Has a period of incubation.
Is frequently multiple.	Chancre seldom multiple.
Color whitish yellow.	Color rosy.
Not indurated at base.	Indurated at base.
Produces pus abundantly.	Produces scarcely any pus.
Produces large single suppurating bubo.	Produces several small non-suppurating buboes.
Never contaminates the system.	Always affects the system.
Can be inoculated successfully into the same patient.	Cannot be inoculated successfully into the same patient.
May occur any number of times in the same person.	Generally can occur only once in the same person.

Mixed Chancre.—Chancroid is the most common, by far, of these diseases; while a pure syphilis, unmixed with chancre, is, in Chicago at least, quite rare. Next after the pure chancroids, the most common form is a mixture or complication of the two diseases, called "Mixed Chancre." This is the genuine old "Hunterian Chancre" of the authors. It manifests the characteristics of both diseases. The ulcer has the purulent effusion and diphtheritic surface of chancroid, with the hardened base of true syphilis. It is slow of healing, like the former, and infects the constitution, like the latter.

Practical Conclusions.—The most obvious inference from these facts is, that insomuch as a pure chancroid does not affect the constitution, it does not require constitutional treatment. If its purity is undoubted, it is all-sufficient to treat a chancroid by from two to four cauterizations with fuming nitric acid, nitrate of mercury, or sulphuric acid. It will then commonly heal without difficulty.

Practically, however, the case is not thus simple. What appears during the first few days to be a chancroid, may be really a mixed disease, in which the induration has not yet been developed, because the time of incubation of the syphilitic part of the symptoms has not fully elapsed. Again, in a person who has had syphilis before, if he proves able to take it a second time, the induration may be entirely absent. For these reasons we are rarely able to say that a chancroid is not mixed with syphilis, whatever may be its present appearance, unless it has been in existence a long time. Disastrous results in the spread of syphilis have occurred in families in this city, in consequence of surgeons relying on the softness of a chancre, and deciding, therefore, that there was no danger of constitutional infection. My practice, therefore, is to lean to the safe side, and treat nearly all venereal ulcers as if they contained syphilitic virus, without waiting for a full development of the disease. There is no doubt of the fact that the absorption of the virus into the system is so rapid that, in true syphilis, the constitution has already received the influence before the induration of the chancre is developed. Hence it is in vain to rely on early cautery as a means of preventing secondary symptoms. The cautery, however, is necessary for the destruction of the chancroidal virus and the healing of the ulcer.

A point of great practical importance has been established by experiments upon the inoculability of secondary syphilis. It appears that the blood and other fluids drawn from any part of the body, where there is a syphilitic tubercle or other form of secondary disease, will produce a pure chancre, followed by constitntional disease. Hence vaccination, nursing, surgical operations, dissections, &c., are all capable of transferring the disease from one person to another.

A single word about remedies. It is now pretty generally admitted that, in primary and secondary syphilis, mercurials are far superior to all other medicaments. BUMSTED, however, is of the opinion that in proportion to the increase of time which has elapsed, mercurials become less and less useful, and iodide of potassium more potent. My practice is to gently mercurialize the patient first, and direct iodide of potassium to be taken for six months afterwards, in doses of five grains, four times a-day.

ARTICLE IX.

CASE OF ACUTE GASTRITIS.—SUDDEN DEATH.

BY HIRAM NANCE, M.D., Kewanee, Ill.

I was called on Friday evening, March 3d, at twilight to see Miss Rosanna Wiley, aged 17. Found her sitting up in a chair Pulse about natural; tongue slightly coated; countenance rather depressed; temperament nervo-bilious. She complained of some pain and oppression in the epigastric region, extending to the right hypochondriac region, and, slightly, to the left hypochondriac region. I saw nothing in the case, arousing my suspicions that anything very serious was pending. I diagnosed hæpatic torpor, or slight congestion of the stomach and liver. In fact, I regarded the case as one of our ordinary bilious attacks of this climate, and founded my treatment upon this basis. She had been to school the day previous, and, in fact, had not as yet taken her bed. I made inquiries, and found that her appetite had been failing for some eight or ten days, and she had been complaining for this length of time with slight pain and oppression in the parts previously spoken of. I ordered her three powders, each composed of prot. ch. hyd. grs. v, rhei. rad. pulv. grs. xv, one to be taken every alternate or third night, if she did not seem much improved on the first, and requested some one of the family to call the next day at my office, and get some vegetable bitter in wine, to be repeated morning,

noon, and night. The latter was not called for; but on the next evening (Saturday), about the same time of day, I was again summoned to see her. Dr. J. F. TODD, a former student of mine, but now a practitioner of medicine, residing and doing business at Wyanet, Bureau Co., happened to be at my house. I invited him to accompany me to see the patient, not that I regarded the case a perplexing and difficult one, but through courtesy. We found her in bed, suffering from pain in the stomach; complained of some burning sensation and oppression as formerly; countenance rather pallid, though not more than is usually seen in diarrhœa, or other common bowel affections in their formative stages; pulse some accelerated, amounting to about 100 or 110, rather small and quick; tongue moist, and slightly furred, ordinary color; no elevation of the papilla; very little sickness at the stomach. I conversed with Dr. TODD, and we came to the conclusion, as the bowels had moved but little from the powder I had ordered the night previous, that we continue the same medicine until free evacuations were obtained. I ordered the same that had been left the previous evening (cal. and rhei.), and if it did not move by morning, to give the second dose. We conversed about the case when we left the house, and I gave it as my opinion that gastritis might be the result, founding my opinion upon the oppression about the stomach; some pain in the epigastric region; small pulse; thirst, sickness, and burning sensation, though the latter symptom not very well marked. I omitted to mention that I also left four powders, each containing grs. ij prot. ch. hyd. and $\frac{1}{6}$ gr. acetate morphia. Those were to be given every two, three, or four hours after the operation of the physic, if the pain and uneasiness continued. I had not been at home more than two hours, before a messenger came after me, saying she was suffering much pain. I told him I could do nothing more, as I had just left the house, and, instead of waiting until next morning to give the second dose of medicine to move the bowels, to repeat it in four hours, and, then, if the pain continued, to give the anodyne and alterative powders I had left until she was relieved. I also ordered sinapisms and hop poultices, and to abstain, as much as possible, from drinks.

Next morning (Sunday), called to see her, about 10 A.M. Found her raised up in bed, with a lady supporting her in a sitting position. Pulse from 120 to 130, very weak; face pallid and waxy; lips purplish; tongue moist, slightly furred; great depression; continued nausea, and occasional vomiting; excessive restlessness; extremities cool; surface of body natural; skin but very little moist. Those symptoms alarmed me very much, in fact, I regarded her in a state of semi-collapse, from which I feared she would never react. I immediately ordered her one spoonful of brandy and ¼ gr. of acetate of morphia, sinapisms to be applied to the stomach, bowels, and extremities. I also, immediately, ordered a messenger to go for Dr. TODD, who was only a few block's distant, and in ten minutes time he was with me. I expressed my fears that she would never react. The irritation of the stomach was so great that nothing could be retained. We gave her morphia, sul. æther, Hoff's anodyne, brandy, ice, small doses of calomel, &c., &c., all to no purpose. Withheld drinks, giving only small pieces of ice in lemonade, but nothing proved of any avail. We remained with her until 2 P.M., then left for half an hour. I then called and staid an hour; went away, and returned in two hours. When I returned, I found her still sinking; vomiting had ceased, but the nausea still continuing; pulse a mere flutter.

I requested Dr. SCOTT, of this place, to call in with me and see her. He came in about 8½ P.M. Pulse at one wrist had then ceased, and very faint at the other. Half an hour longer she was pulseless; *intellect perfect.* I informed her she could not live but a very short time. She seemed astonished; said she felt quite easy. She called her friends around her, bid them affectionate farewells, and in half an hour death closed the scene.

I report this case for its peculiarity, for its sudden termination in collapse and death. No *post mortem* was obtained. Now, the question arises, was it a genuine case of gastritis? Dr. TWEEDIE, in his work on Practical Medicine, says, "if the disease (acute gastritis) does not *terminate in death in a few hours*, or by the second or third day, it may extend to two or

three weeks, and still prove mortal; or it may pass into chronic gastritis of indefinite duration." He further says, "death in rapid cases is produced by depression of the vital functions." Acute gastritis is usually produced from poisons, concentrated acids, or cold drinks when the person is over heated. None of these could I attribute this attack to. She had been complaining, as I observed, several days with oppression, &c., of the stomach, before the urgent symptoms made their appearance. She apparently, and not only apparently, but did actually die from the *shock* the nervous system received before reaction took place.

The great solar plexus of nerves composed of ganglions and filaments intervening and anastimosing with each other from the great sympathetic, also branches from the pneumo-gastric or eighth pair, is minutely distributed upon this great plexus. This great solar plexus of nerves is situated in the spinal column posterior to the stomach, liver, and spleen, and gives off inferior plexus to the diaphragm, liver, and stomach, also the superior and inferior mesentric. The kidneys are likewise supplied with nerves from this plexus. Thus we see this nervous plexus is of great magnitude, and if it should receive a severe shock from any source, either idiopathic or from injury externally applied, death might speedily result. Now, my opinion is, that the great lesion was about this great plexus of nerves. That there was some congestion of the liver, spleen, and stomach, I do not doubt; but I should doubt extremely if inflammatory symptoms had as yet set up in the stomach when death took place, notwithstanding TWEEDIE says death may take place in a few hours. You will observe there was not a flushed countenance, neither was there a red tongue, nor any great degree of burning in the epigastrum. If in acute gastritis we must have those symptoms, then inflammatory symptoms had not set up, and she died from the collapse of the nervous symptoms produced by inflammation of the stomach. Had she reacted, in my opinion, active well-marked gastritis would have been the result.

In conclusion, I might say, that my treatment was not such

as is ordinarily pursued in cases of acute gastritis, neither do I think any *sane* physician would have adopted such treatment under such circumstances. Who wouldn't give brandy and other stimulants to a patient in a dying condition? And where would you find a physician fool enough in our profession to bleed, cup, leech, and use other antiphlogistics when the last lingering spark was fast fading away?

I omitted to say in the proper place, that I diligently enquired if my patient had either ate or drank any unusual diet recently, and found that on Thursday she had been eating oysters with the rest of the family. Had others of the family been ill, I might have attributed the exciting cause to the oysters, but they all remained well.

CEREBRO-SPINAL MENINGITIS.

By F. R. PAYNE, M.D., Marshall, Illinois.

This epidemic, usually called "spotted fever," has for the last five months prevailed to an alarming extent in this community. It is a terrible disease, and in my opinion, based upon limited observation, if treatment is delayed for twelve hours, death is inevitable.

The disease is ushered in by a chill, or rather tremor, surface of the body cold, pulse, if at all perceptible at the wrist, small and slow, the skin an ash or light lead-color, pain in the head, back, or some of the extremities, a tremulous and painful sensation in the epigastrium. In a short time the eyes become suffused, pupils dilate; the patient becomes restless, and very sensitive.

There is all the evidence of congestion and depression, clearly indicating some toxic agent in the blood, which seems to have a strong affinity for the brain and spinal marrow. The blood is rapidly disorganized—its vitality destroyed—the capillaries and vessels of the brain lose their contractility, as shown by deep moaning, petechical eruptions over the surface of the

body. At this stage the patient is partially delirious, but in most cases they will answer questions correctly. The bowels, in nearly all cases, are constipated, tongue slightly coated, and in most of them we find contraction of the posterior muscles of the neck.

Death frequently takes place in five or six hours after the first symptoms appear. I agree with Dr. McCoy, of Morgan County, Illinois; his observation corresponds with what is presented in this locality. The circulation gives out first, then the intellect, and lastly, respiration. Without prompt and energetic treatment, the eyes are frequently closed in death before reaction. In a few hours after the chill, the congestion and depression will completely exhaust the vital powers of the system, and remedial agents will accomplish nothing, even if reaction is established.

In Clark County, we have on former occasions been visited with epidemics in many respects similar to the one now raging. In 1845–46, Dr. James Smick and I met with a terrible and fatal epidemic, vulgarly called "*black tongue*," but, as shown by *post mortem* examinations, was cerebro-spinal arachnitis. This disease first made its appearance in the cuticle, and in all respects resembled ordinary erysipelas, but soon extended through the mucous membranes to internal parts, and then we had symptoms almost precisely the same as now found in *spotted fever*—congestion, depression, and partial delirium. We then, on account of the epidemic prevailing in wet or damp weather, favorable for intermittents, supposed that the toxic agent was *malaria*. We are now thoroughly convinced that the blood-poison is not the same as that which produces intermittent and remittent fevers. In 1845–46, *post mortem* examinations revealed congestion of the bloodvessels of the brain and spinal marrow, and, in the language of Dr. Smick, "the arachnoid was inflamed in every part of it, and covered with a thick layer of pus;" but still we had great depression, contra-indicating the resort to antiphlogistic remedies. It is evident that malaria is not the origin of this class of diseases, from the fact that we have it in districts almost entirely exempt from the prevalence

of malaria, and its absence in localities where the generator of intermittents is known to exist. I learn from Dr. J. D. MITCHELL, who located in Darwin, Clark County, after SMICK and PAYNE left that place, that in 1858, a similar and very fatal epidemic prevailed to an alarming extent in that locality, which he denominated *erysipelas of the brain.* In all of these cases the symptoms were nearly the same as now in spotted fever. They had no premonitory external symptoms, as in 1845, of the approach of a terrible disease. The malady was ushered in with a chill, or rigor, great depression, and congestion of the brain and spinal marrow. This epidemic prevailed in that locality only, and all the cases were in the vicinity of Darwin, on the Wabash River; no cases above or below that point. In this county we had no visitation of an epidemic of this character until the winter and spring of 1863–64; but we learn from Drs. S. JUMPER and CHARLES GORHAM, that what is now called *spotted fever* then prevailed to a fearful extent in the localities of Darwin and York, in the south part of Clark and north portion of Crawford County.

In November, 1864, we were, in this locality, visited with the terriffic disease called "*spotted fever*, and from that time until present writing an element has existed in the atmosphere, or somewhere else, which has caused an extraordinary amount of eruptive fevers. In ordinary cases of pneumonia, we usually have petechia or wine-colored spots, frequently all over the body; and in March, 1865, many unmistakable cases of small-pox made their appearance.

It has this winter and spring been clearly demonstrated that, when eruptive diseases prevail in a community as an epidemic, the virulence of small-pox contagion is at least sharpened; but we have no positive evidence of it existing epidemically. We do not believe that the epidemic influences which produce these eruptive fevers are capable of generating small-pox.

Within the last five months I have treated thirty-one cases of what is called spotted fever. Fourteen have died; the others are all well except one, a little child, two years old. It seems tolerably well, but sight and hearing are much impaired. My

treatment after the first cases was based upon the views and observations of Dr. McVey. When this disease is first ushered in, it is important, and absolutely necessary, that we resort promptly and energetically to the use of arterial or general stimulants. Under their influence the heart and arteries pulsate with more vigor, and the contracted capillaries become distended with red blood, and all the functions, especially those of the nervous system, are rendered more active. For this purpose we use brandy or good whiskey freely. In a disease so rapid in its march and terrific in its nature, it is necessary to use, in addition to these remedies, agents which will act directly on particular organs or apparatus. The capillaries and vessels of the brain are congested, and opium is perhaps the best remedy known to fill the important indication of arousing them to action, that they may rid themselves of the morbid accumulation of fluid in their structure. Quinine is certainly contra-indicated, and in all my recent cases I have used arsenic as an anti-periodic. In the treatment of thirty-one cases fourteen died, and it is unfortunate that I was not able in any of the cases to procure a *post mortem* examination. Drs. R. F. Williams and Rains also lost a number of cases.

After the first few cases, our treatment was, in the chill, brandy, mustard to spine, legs, and arms; opium to adult in 3 to 5 grain doses, every three or four hours; hot rocks, and stimulating friction of the surface. If reaction could thus be established, we diminished the brandy and continued opium, to which was added alterative doses of hydrargyri chloridi mite, and moderately keeping the bowels open with mild aperients. Alternately with the opium powders, we give four to six drops of Fowler's Solution.

This treatment is certainly the most successful, and we feel confident that if early adopted, a majority of the cases will recover.

ARTICLE X.

A THESIS ON HOSPITAL GANGRENE.

BY JOHN E. LINK.

Presented to the Faculty of the Chicago Medical College, February, 1865.

Hospital gangrene is characterized by a dark gray, pulpy slough, with inflammation of the surrounding tissues, presenting a circular form, with raised indurated edges, spreading rapidly. There is a discharge of dark, or yellow-greenish pus, with an offensive, pungent odor, and not to be mistaken, if once recognized. The patient complains of loss of appetite, an indisposition to sleep, has sharp, biting, or stinging pain, the pulse is quick and feeble, cheek flushed, tongue dry and furred. Sometimes, in the early stages of the disease, the patient complains of chilly sensations, followed by hot flashes, alternately. This is not so marked in the early as in the latter stages, where it has been permitted to run on for several days, and the patient is becoming exhausted. The disease is wholly local, the constitutional trouble being merely the result of the local, and at once disappears when it is checked. It generally attacks recent wounds, though not confined wholly to them. I have seen it, in a few instances, occur in old, indolent ulcers, and in suppurating wounds, that were closed to the size of a ten cent piece, or smaller. Stumps that are almost healed, are sometimes attacked, and the cicatrix destroyed, laying the flaps entirely open in a few days, if not checked. It confines itself, principally, to the integument and cellular planes, often dissecting the muscles and larger bloodvessels as nicely as if done with the scalpel. It sometimes, however, attacks these and converts them into a pulpy mass which sloughs away, and, in the latter case, causing dangerous hemorrhage. The bone is sometimes denuded and necrosed. In one case that came under my observation, the tendo achilles was divided, but all these, in the majority of cases is more the result of the remedies used than of the disease. The destruction of bone may generally be avoided by proper care. The cellular tissue is more readily affected

and destroyed than the integument, thus causing saculation and burrowing of pus, and for this reason the wound should be thoroughly examined, by the probe or finger, to learn the extent of the disease. It is more liable to attack wounds from the fifth to the tenth day after the receipt of injury than at any subsequent period, or, after healthy granulations have once sprung up.

The causes of hospital gangrene are various. Among the most frequent are crowded or ill-ventilated wards, the effluvia arising from sinks, decaying vegetable or animal matter, or filth of any description. The crowding of too many suppurating wounds into one ward is a very frequent cause, as well as a lack of frequent and proper dressing, or using the same sponge and dresser for different patients. Where one patient is suffering from e disease, the others immediately around him, and even in different parts of the ward, are liable to be attacked, even where the most diligent sanitary rules are complied with, and all care taken to prevent actual contact by using separate dressings and dressers—for this reason, the cases suffering with the disease should be kept isolated from the other patients.

In the treatment of gangrene, the first and most necessary step, is the thorough cleansing of the wound, and as it is a very painful one, it is best to put the patient under the influence of chloroform or ether. The surgeon should arm himself with a pair of forceps, probe, scissors, scalpel, basin, and sponges. With the forceps and scissors, or scalpel (I generally prefer the latter), the surgeon proceeds to trim away the slough, and it is best in all cases to remove the skin as far as the disease has extended in the tissues beneath, to prevent the saculation of pus, giving free drainage, and on the first application, where the disease is first making its appearance, and the tissues are not entirely disorganized, it is best in these cases to make free use of the scalpel, and remove nearly, if not quite, the whole of the surrounding indurated tissue. After this is done, and the wound is thoroughly dried, apply some caustic, either nit. acid, bromine, or solution of chlorite of zinc, to destroy any remaining virus. Where this is done in the early stages of the disease, a second application is scarcely ever required, but where

the disease has existed for a longer period, so that there is a large open sore, the whole face of which presents a dark gray, pulpy appearance, the management of the disease is more difficult, and may require several applications before it will be entirely checked. In all cases the wound should be thoroughly cleansed, by scraping with the handle of the scalpel or spatula, until the whole of the gangrenous slough is removed, and the healthy tissues beneath are reached. As a local application in these cases, I generally make use of the nitric acid. It is much more simple and easily applied, and also more penetrating than the bromine, finding its way to the most intricate interstices, while the bromine will not penetrate its own coagulum, and, owing to its volatility, is much more difficult to handle, and often, in the hands of those unaccustomed to using it, gives rise to very unpleasant circumstances, filling the room with its vapor, which, by no means, has a pleasant effect on the eyes and air-passages of those who come in contact with it; and even in the hands of the most practised, this cannot be wholly avoided.

The mode of applying nitric acid is simple. Tie a small piece of sponge, or a piece of soft cloth, to a small stick, making a swab or mop, which should be thoroughly saturated with the medicine, and applied to all parts of the wound which pours out a dark fluid, which should be removed with the sponge, and the application continued until the surrounding tissues lose their red, inflamed appearance, and become pale and soft, which will always be the case, if continued long enough, and if carried to this extent, it will very seldom be found necessary to repeat the treatment. The wound should now be dressed with simple water dressing—some prefer the charcoal and yeast poultice, which seems often to have a very good effect in removing the slough, and where they are frequently changed, and the wound cleansed, is very good treatment, but the wet cloths, which keep down the inflammation, and also keep the wound moist until healthy granulations spring up and remove the slough, which will occur in from three to four days, seems to be all-sufficient. After the slough has been removed, and there are any further signs of gangrene remaining, the application should be repeated, always

giving ample time for the slough to be removed, unless the fetor can be detected, which is a certain indication that the disease is still lurking in some portion of the wound, and should at once be sought, giving it no time to spread, which it will do very rapidly if not checked, and thus all former treatment will be lost.

When the bromine is used, it is necessary to use some precaution to prevent the escape of the vapor. The bottle containing the medicine should be kept tightly closed until the wound is prepared, then it should be cautiously opened, and a small portion poured into a cup containing water. The bromine at once falls to the bottom, the water preventing the escape of vapor. A small glass or rubber syringe can now be inserted and a portion introduced, which can be applied to all parts of the wound, care being taken to introduce it well down into all the cavities. In this, much more care is required than where nitric acid is used. It is sufficient to pour the acid into the wound, when it will gravitate to almost all parts of the wound. Not so with the bromine, it must be introduced to all parts; the swab will answer for this purpose, but not so well as the syringe. After this has been done, the wound should be covered with a piece of cloth spread with simple cerate, to prevent the escape of the fumes arising from the bromine. This, when properly used, is an efficient remedy in the treatment of hospital gangrene, but under my observation is not as successful as nitric acid, owing to the difficulty of applying it, but where it can be thoroughly applied it will in all cases destroy the disease. The result of the treatment of gangrene was not as successful previous to the introduction of bromine by Dr. GOLDSMITH, in 1862, as it has been since, which is owing more, in all probability, to the free use of the scalpel in cleansing and thoroughly preparing the wound, than to any superior quality which it possessed over the acid, and solution of the chlorite of zinc, which had been in use. Where the bone is exposed, it should be kept coated over with simple cerate, to protect it from contact with the caustic. By proper care, in this way, necrosis, or caries, can generally be avoided. The constitutional treatment should

be merely supportive, making free use of stimulants and tonics, with proper diet.

Selections.

ON REMITTENT OPHTHALMIA—STRUMOUS OPHTHALMIA OF CHILDREN.

By HENRY HANCOCK, Esq., Surgeon to the Charing-Cross and Westminster Ophthalmic Hospitals, &c.

[Many years ago, Mr. Hancock published some papers to show that what is commonly known as strumous ophthalmia does not depend upon that particular condition of constitution.]

The disease described under the titles "strumous," "scrofulous" or phlyctenular ophthalmia, is an affection of simple character, depending upon disorder of the digestive organs, influenced by the age of the patient, and presenting a type peculiar to diseases of the earlier period of life. True strumous or scrofulous ophthalmia is, as pointed out by Jacob, an affection of an entirely different character Phlyctenular ophthalmia attacks children of all conditions, whether scrofulous or otherwise; it does not appear to be influenced by station in life, nor is it especially restricted to any particular color of the hair or complexion; it attacks the fat, stout child, equally with the thin, and the highly-fed equally with the child of penury and want. In all cases the principal diagnostic signs of remittent fever are present; more urgent and well-marked, it is true, in some instances than in others, but in all they may more or less be traced, if ordinary attention be paid to the subject. The remissions of severity; increase of fever and heat towards night; the subsidence thereof, and accession of perspiration; the eruption about the nose and corners of the mouth; picking the nose and lips; rubbing the eyes; fœtid, sour, and disagreeable breath; the strawberry tongue, covered with moist fur; the enlarged liver; the tumid, hard, and swollen belly; irregularity of the bowels, sometimes constipated, at others relaxed; the evacuations clay-colored, or dark, or slimy, and mostly offensive. The tendency to eruptions over the face, head, and body, so invariably present in this form of ophthalmia, bears such strong affinity to the symptoms of the remittent fever of children, that I

have long regarded the ophthalmia of children as a disease of the same character, and have consequently discarded the term "strumous," and "scrofulous," as applied to it, designating it as *remittent* ophthalmia.

The term "strumous ophthalmia," has heretofore embraced a large class of cases. Mere congestion of the palpebral, or of the ocular conjunctiva, with or without phlyctenular or pustular eruption; inflammation of the sclerotica or of the cornea; ulceration; suppuration, or sloughing; interstitial deposit between the layers of the cornea; certain affections of the iris; and in some rare instances, of the retina, if accompanied by intolerance of light, having been classed under this designation. I propose, however, in this and subsequent papers, to consider first, the more simple form, the remittent ophthalmia; secondly, the "phlyctenular, or pustular ophthalmia," and lastly, the "strumous."

Remittent ophthalmia is the most frequent and simple, depending upon derangement of the digestive organs; it may attack any child in whom such derangement obtains. It is for the most part confined to the superficial tunics of the eye, and is very frequently accompanied by cutaneous eruptions. It may exist for a great length of time, without producing any serious permanent results. The complaint will often be confined to the conjunctiva of the eyelids, the edges of which are loaded with a viscid secretion. It its more severe form, the disease extends to the ocular conjunctiva, the redness being restricted to one or more fasciculi of superficial vessels, extending from the back of the eyeball to the margin or front of the cornea, where they commonly terminate in phlyctenulæ, which are either absorbed, leaving superficial white specks when seated in front of the cornea; or, suppurating and bursting, result in superficial or deep-seated ulceration, occasionally penetrating the entire thickness of the cornea, allowing the iris to protrude; or, in other cases, destroying a larger portion of the cornea, and changing its brightness altogether into a yellowish slough. These two latter forms are always succeeded by permanent adhesion of the iris to the cornea, and the formation of a cicatrix, which rarely disappears. The local symptoms in the milder forms, are pain; intolerance of light; redness; and the formation of simple pustules, with increased flow of tears. In the severer forms, ulceration, or even sloughing of the cornea will sometimes occur. In the majority of cases there is more of discomfort than of actual pain, although in some instances the pain is very severe. It is usually remittent, being absent during the day, recurring at

night, and subsiding towards morning. In the early stages the pain is always sharp, darting, and intermitting; but when phlyctenulæ, pustules, or ulceration of the cornea exist, a continuous sensation of grit or sand in the eye obtains. The intolerance of light is a symptom so prominent and distressing, that many authors have been led to regard it as the cause, rather than the result of the disease. Experience, however, proves the error of this opinion; it is very true that with the subsidence of the intolerance of light a very marked improvement in the disease takes place; this, however, is not due to the subsidence of the intolerance of light, but to the removal of the cause which produced both it and the disease, the intolerance of light being merely a symptom of the disease, a sympathetic or functional affection, a morbid sensibility, depending upon disorder of the alimentary canal, and various secretions.

Although permanent and persistent in some, the photophobia is generally remittent; it appears to alternate with the pain, for whereas the latter is less urgent in the morning, and during the day, the intolerance of light is most severe at those times, subsiding towards evening, when the pain becomes more aggravated. The intensity of the photophobia, however, must not be regarded as any criterion of the severity of the disease; the less urgent and serious the malady, the greater, in most instances, will be intolerance of light. A child may open its eyes when considerable disorganization has taken place, but when the attack is comparatively slight, it will make great effort to exclude the minutest ray of light.

Treatment.—In the *British Medical Journal*, June 4, 1864, Mr. Cheshire, Senior Surgeon to the Birmingham and Midland Eye Hospital, in advocating the use of tartarised antimony as a remedy in strumous ophthalmia, observes, "I am aware it has long been the practice of ophthalmologists to administer a single dose of tartarised antimony, as a beginning to the treatment of strumous ophthalmia, &c., &c., but it does not appear to have been resorted to as a remedy, *per se*, for the cure of strumous affections of the eye."

In the same Journal, for the 25th June, 1864, Mr. Price, of Margate, in eulogising Mr. Cheshire's notice, adds, "That the plan of treatment therein recommended, is both little known and little practised, I am fully convinced; and my object in again bringing the subject forward is to endorse the statements of Mr. Cheshire, in the hope of inducing practitioners to follow this mode of treatment on a more extended scale."

It is very evident that Mr. Cheshire and Mr. Price had either

forgotten, or had not read my lectures published in the *Lancet*, in the year 1852, in which I gave the result of my treatment during several previous years of strumous ophthalmia (so-called), by tartarised antimony, in opposition to the then existing treatment of that disease by tonics, and the local application of arg. nitratis, &c. Since the year 1849, I have not only steadily pursued this treatment, but strenuously recommended its adoption by the numerous surgeons who, from time to time visit the Royal Westminster Ophthalmic Hospital. Under these circumstances, I may be excused for again bringing forward the substance of the treatment I have so many years advocated.

The main objects to be steadily borne in mind in the treatment of remittent (strumous) opthalmia, are, relief of the organs of digestion, and the correction of the secretions. If these are attained, the other symptoms will improve, and the eyes share in the general change for the better; but unless a systematic plan, embracing diet, clothing, good nursing, as well as medicine, be adopted, little benefit will result. As I have before observed, remittent ophthalmia may, as a general rule, always be traced to a disordered condition of the digestive organs, a want of digestive power, an incapability of properly assimilating the food. The liver is sluggish, irregular in its action, and frequently enlarged; the mesenteric glands are commonly increased in size; the secretions are vitiated, and the blood consequently becoming impoverished and impure, the whole system is deranged. The child is rendered pale, weak, and fractious; its appetite is lost, or very capricious, and it is said to be strumous, weak, and delicate; but this condition need not become permanent, if the case be judiciously treated; if it is not at the outset erroneously supposed to depend upon cachexia or debility. The debility is for the most part more apparent than real, and proceeds from irritation, or of oppression rather than of actual weakness. Remove the cause, and the debility will disappear *pari passu*.

I will not here enter upon the local treatment usually resorted to, as I have long ceased to employ it in remittent ophthalmia, excepting where the cornea has given way and the iris protrudes; in such cases, touching the protruding iris with the pointed nitrate of silver and applying the extract of belladona over the eyebrow are very useful. From repeated trials of the various local remedies recommended, I am convinced that they do more harm than good, causing great suffering without compensating benefit; indeed, children get well much more quickly when they are not used at all. The treatment should commence with an

emetic of tartarised antimony, given as advised by Dr. Mackenzie, viz., in minute doses at frequent intervals, until free vomiting is excited; and this in all cases, however attenuated or however stout the child may appear, the object being to relieve the stomach of its offensive contents and to render its secretions more natural; to correct and restore the secretions of the kidneys, liver, and other glandular structures, and to influence the capillary system generally, so as to improve the condition of the skin and mucous membrane, and allay the morbid excitement of the nervous system.

This is best done by the tartarised antimony given as above, and it is very important that attention should be paid to the mode of its administration. The mere inducement of vomiting, the simple evacuation of the contents of the stomach is not sufficient, unless the medicine by being absorbed into the blood is enabled to produce other results; hence I have not observed anything like the same amount of good to result from sulphate of zinc, nor the ipecacuanha powder, or even from the tartarised antimony when the latter is administered in a single large dose to cause immediate vomiting. The following is the form which I usually employ:—

℞. Antim. tart. gr. iv.; syrup. ℥iv.; aq. cinnamoni ℥iij.; aq. distill. ad. ℥viii.

For a child under three years of age, two teaspoonfuls should be given every ten minutes until vomiting ensues; above this age, a tablespoonful should be given at similar intervals. It commonly requires four or five doses to produce the full effect, in some instances more, in a few less. This treatment should be repeated daily, until the intolerance of light begins to diminish, which it will mostly do after the first or second day, although in some of the more obstinate cases, four, or even six days will elapse before the desired result is obtained. When, however, the intolerance of light begins to subside, the emetic should be discontinued, and a powder of calomel and rhubarb, or mercury with chalk, and compound scammony powder every night, or every alternate night, until the tongue becomes clean, the abdomen softer and flatter, and the alvine secretions healthy; as these changes are brought about, the eyes will improve if attention be paid to the diet. When the attack is complicated with skin eruptions, aperients will be required for a somewhat longer period. Should the attack of ophthalmia be preceded by measles, small-pox, scarlet fever, or any other complaint of a highly depressing character, or if the child has been exposed to excessive want, is much attenuated, and covered with a cold clammy perspi-

ration, calomel, even in small doses, should not be given, except with great caution; in no instance should more than one dose be given without the patient being seen, as should ptyalism take place, such extensive sloughing of the fauces, gums, and even of the lips and cheeks may ensue as to destroy the child in a very few days. I have known this occur more than once. With such children it is safer to abstain from the use of calomel altogether, and to substitute the compound scammony powder, with taraxacum and henbane. When mercury, however, is especially indicated, I always combine it with quinine, taking care not to push the medicine to such an extent as to produce ptyalism.—*Journal of British Ophthalmology, October* 1864, p. 35.

REVIEW AND ABSTRACTS FROM A COLLECTION OF MEMOIRS UPON AN IMPORTANT DISCOVERY OF SOME OF THE UNKNOWN FUNCTIONS OF THE PANCREAS.

By Professor LUCIEN CORVISART, Physician to the Emperor, Officer of the Legion of Honor, &c., &c.

Translated for the St. Louis Medical and Surgical Journal, By J. K. BAUDUY, M.D., St. Louis, Mo.

A recent publication by Victor Mason et Fils, of Paris, has greatly interested us. Lucien Corvisart, in contributing to medical science his collection of memoirs, upon a function so obscure as that of the pancreas, has greatly added to our previous knowledge upon the subject, and has thrown many additional rays of light upon a study which has so long been veiled in profound darkness, and hidden from the most penetrating and indefatigable searches of physiological exploration. This little book will not fail to interest the profession at large, and will certainly greatly repay them for the attention they may bestow upon it. The more arduous the avenues of approach to certain medical subjects, the more intricate and unintelligible their comprehension, the greater are the energy and perseverence which have always been displayed by our profession, in overcoming all the obstacles and difficulties, in the way of clear elucidations of obtruse and doubtful problems. The pancreatic function has long been a source of uncertainty and dispute among physiologists, and the task of clearing away many of the clouds that have so obstinately hung around this subject

replete with so much interest, and *pathological importance*, was reserved for the genius of Corvisart. He does not arrogate to himself, however, the claim of the first discovery of the functions to be described, as the idea first originated with Purkinje and Pappenheim, in 1836, but he only has established and *proved* laws which govern the pancreatic function, that are based upon experiments which were probably suggested by his familiarity with their views. At all events, great credit is due to him for his scientific and successful elaboration of views, be the original conceiver of them whomsoever he may. Nor does the author undertake to explain the entire physiology of pancreatic functions, but merely professes to have ascertained some very important and interesting uses of the gland, based upon numerous proofs furnished by his investigations, and resting upon the broad basis of scientific experiments, which all who may feel inclined to be incredulous, may repeat for themselves in their own studios. Our previous knowledge of this organ, the author does not entirely controvert—he contents himself with boldly maintaining *new truths*, which, as zealous devotees in pursuit of professional knowledge, we ought carefully to collect, weigh, and balance, before we finally either receive or reject. The weight of authority in France and Germany, tends to strengthen and confirm the position taken by the author. The first statement that attracts our attention, and causes us to pause and reflect in reading the memoirs, is the close *analogy* said to exist between pancreatic and gastric digestion. The author then goes on to say, that the most important function of the pancreas is the digestion of *nitrogenized elements of food.* These constitute the principal topics discussed in his little work, though there are, however, some secondary but very useful points which are taken into consideration, the principal of which are as follows, viz.:—

"1st. The *intra venous digestion of the blood itself.*"

This form of digestion resulting, perhaps, in the constant renovation of this fluid by means as singular as they are little understood.

"2d. The fact that certain azotized alimentary substances are *digested in variable quantities*, this depending as to whether the pancreas or stomach is in the better state of preservation, and which of the two organs most completely retains and performs its digestive functions.

"3d. The influence of stomachic digestion (that is to say, the normal formation by it of gastric peptones) upon *the production of the pancreatic ferment*, the quantity and quality of

which are of so much importance to the welfare of the economy.

"4th. A secondary, but very interesting point, is that of pyloric *insufficiency*, as a cause of either gastric or intestinal dyspepsia."

Owing to my small amount of space, it will be impossible to give a full description of the author's opinions. I shall therefore be obliged to confine myself to the principal topics of interest and importance he discusses. I shall often quote his own words, in order to be accurate and in exact conformity with his precise meaning, and I will be likewise compelled to give very literal translations to avoid all possibility of misrepresenting his views.

The subject is so new, and so little able are the generality of the profession to pronounce *definitely* at present upon the topics under discussion, that it will be useless to offer comments and criticisms upon *experimental deductions* which we cannot fully appreciate until we convince ourselves by the same course of investigations pursued by the author, which is open to all inquiring minds. Our previous knowledge of the pancreatic function consisted in what we were taught to believe was its action on amylaceous matters, converting them into dextrin and glucose, with its additional and perhaps more important office, that of emulsifying *fatty matters*.

As I have already stated, the first discoverers of the influence exerted by pancreatic digestion upon azotized aliments, were admitted by the author to be Purkinje and Pappenheim, in 1836, whose views were condemned afterwards, however, by all physiologists, and finally were somewhat modified and confused by Claude Bernard, in consequence of two mistakes made whilst experimenting with the results of putrefaction. Great are the advantages to be derived from the perusal of this learned work of Corvisart, whose laborious researches and five years of indefatigable study, at least entitle it to our attentive consideration. In addition to all this, its weight and authority are unquestionable, when we consider the high professional attainments, and elevated position so long and usefully occupied by the distinguished author. Nor are the advantages to be gained by us in weighing these subjects merely imaginary, but they are *practical*, because the doctrines inculculated are not useless theoretical expositions; on the contrary, the author has drawn *pathological deductions* from his experiments which must interest all practitioners of medicine, and obviate many of the difficulties encountered by them in the diagnosis and treatment of the various causes of dyspepsia.

In the words of the author, "in the present state of our knowledge, what precise information have we to guide us concerning intestinal dyspepsia, its causes, mechanism, and rational treatment?" Corvisart's views, which at first met with obstinate incredulity and rigid criticisms, are every day gaining converts abroad, and many eminent physiologists, such as Meissner, Wittish, and Bach, Danilewski, Stokwis in Germany; Harley in England; Prof. Schiff in Switzerland, &c., have fully confirmed, by repeated experiments the views of the author. Longet has not only adopted and sanctioned Corvisart's contribution to our knowledge of the physiology of digestion, but he publicly teaches them to his large classes. To return to the author's opinions again, I shall continue by freely quoting his own words upon the principal topics with which it behooves us to become acquainted. The pancreas is, as it were, a supplementary organ, whose action after a large repast is auxiliary of gastric digestion. Pancreatic digestion, however, is independent of gastric digestion. The former does not merely consist in transforming into other peptones, those which have already been acted upon in the stomach. In other words, gastric peptones do not undergo changes in consequence of the pancreatic juice, but on the contrary, the author positively maintains, that when a nitrogenized element of food, or a portion of one, has been completely submitted to the process of gastric digestion, it is almost invariably, *directly* absorbed by the stomach. "There are gastric peptones and pancreatic peptones." Corvisart entirely rejects the idea entertained by certain physiologists, who assert that the stomach only macerates, or subdivides the food without dissolving it; he maintaining, on the contrary, that every article of albumenoid nourishment submitted to the action of the stomach, is not divided, but *dissolved*, passes through a filter, as it were, and is absorbed by the membranes themselves. In fact, he adds that the pancreatic function comes into play upon portions of albumenoid substances which have left the stomach *before* any transformation had taken place by gastric influence, and that in certain cases the action of the pancreas is so considerable as fully to equal that of the stomach. Here, the author remarks, that as regards the mere quantity of secreted digestive fluids, care should be taken to avoid fallacious conclusions therefrom, because the stomach is apt to be regarded as much more powerful, from the fact of the gastric secretion being sometimes more *abundant* than the pancreatic fluid; but by way of compensation, he observes that the pancreatic fluid is *ten times* stronger and higher in its possession

of ferment (pancreatine). The pancreatic fluid enjoys the remarkable privilege of acting much more *rapidly* upon azotized aliments, whether they be alkaline, neutral, or acid. It is strange that these functions are so entirely independent of each other, that the pancreatic fluid alone is able to accomplish the digestion of food which has not been subjected to gastric influences. Hence, albumenoid matters, without any preparation whatsoever, directly placed in the intestine in a crude state, or in the pancreatic juice outside of the body, will, in both places, be perfectly and completely digested. Moreover, to acquire this digestive property, the pancreatic juice has not to be mixed with either the "succus intestinalis," or the bile. The author clearly proves that this process may be accomplished outside of the body with the pancreatic secretion alone, or isolated pancreatine, and that the function will be performed as certainly as it would be were it exercised in the interior of the duodenum itself. As long as the gastric and pancreatic juices are separated, and act successively, they exercise their respective functions perfectly, and the quantity of albuminose resulting may be almost doubled; but it is a remarkable fact, that if in a *pure* state the two digestive ferments simultaneously meet, the respective digestions will cease to progress so freely. Far from the digestive products being increased or doubled by the circumstances of the mingling of these juices, they will, on the contrary, be greatly diminished; because, in this state, which is not a physiological one, the pepsine and pancreatine will neutralize one another. It may here be objected, that this union of the juices can not well be prevented, but Corvisart proves that nature guards against this contingency by three different methods, viz.:—

1st. By means of the pylorous which separates the two ferments.

2d. By gastric digestion itself, by means of which the pepsine in forming peptone becomes exhausted and consumed.

3d. By the bile, in which, as Pappenheim has demonstrated, destroys the activity of the gastric ferment.

By this last assertion, the author does not mean that the bile precipitates the mass of peptones, produced by the action of the stomach, so that digestion is destroyed, and has to re-commence; but, on the contrary, *the bile itself* is precipitated, by the acidity of the gastric juice or chyme; finally, very little gastric peptones arrive in the intestine, as the stomach has previously absorbed them.

Intra-venous digestion is so beautifully and satisfactorily explained, that I will quote the author's own words, verbatim:—

"During *the first three hours* that follow a meal, a period during which digestive *dissolution*, transformation, and absorption, are not far advanced, the blood of the portal vein (compared with the venous circulation at large) does not become enriched with a sensible quantity of nitrogenized materials by digestive absorption; on the contrary, in the intestine under the influence of the alkaline pancreatic juice, the elements of the blood, fibrine, and globules, become transformed into albumen, (caseiforme) by a commencement of digestion.

"But if it be taken into consideration that during the first three hours of digestion: Firstly, that the pancreatic juice poured out into the duodenum remains there in a pure and active condition; Secondly, that it is able to pass into the portal vein, because absorption by the mesenteric veins is not suspended; Thirdly, that the pancreatic secretion can exercise its digestive action on an alkaline medium as that of blood. If one takes into consideration, on the other hand, that it is precisely during these first three hours of digestion that a great part of the globules and fibrine of the blood of the portal vein are formed *in equal proportions* inside of this vein into albumen, (commencement of a similar transformation to that which they underwent in the intestine, under the influence of the same pancreatic juice), it is difficult to recoil before the hypothesis of a *veritable intra-venous digestion*, a function which is new to us, and which it is necessary to study. No real difference has been traced between the nitrogenized matters called extractives, and the albuminose produced by gastric or pancreatic digestion. The chyliferous vessels, *the portal vein and its continuation, the hepatic veins*, that is to say, the vessels which receive most directly the products of digestion, are, after the portal vein, a good deal richer in extractive matters (albuminose) than the rest of the blood; it will be remarked that they contain also more glycose. In nutriments (albuminose, glycose) the richness of the vessels of the liver can be explained by gastric intestinal absorption, to which may be added the prolonged intravenous digestion, without any agency of the liver whatsoever in the matter."

The author draws certain *pathological deductions* from the preceding physiological laws. To me, his reasoning is at least fair, if not conclusive, and is co-relative with the premises. In connection with albuminoid aliments there exists almost certainly a duodenal indigestion caused by the viciation, insufficiency, or absence of pancreatic secretion; the symptoms of which do not manifest themselves before the end of the second, or commence-

ment of the third hour of digestion. This form of indigestion is accompanied with more profound sensations of inconvenience than gastric dyspepsia. In these cases the internal use of pancreatine is indicated.

The following are some of the secondary causes of duodenal dyspepsia:—

1st. Almost entire insufficiency of that division which the gastric juice effects *at least* in those articles of nourishment that it has not as yet transformed into peptones. The pancreatic digestion is in consequence slower, as gastric oftentimes is, when the teeth have not performed their function. This form of secondary pancreatic dyspepsia is cured by the appropriate treatment for primitive gastric dyspepsia.

"2d. Superabundance of the gastric juice, or insufficiency of the pylorous.

"3d. Insufficiency in the biliary secretion.

"4th. A dyspepsia that may be called portal, or hepatic, resulting from a viciation of intra-venous digestion."

Certain symptoms of dyspepsia, of gastralgia, and hepatalgia, might erroneously be attributed to the stomach, intestine, or liver; but rarely result from the absorption of the pancreatic juice by the portal vein, the secretion being too abundant, active, and irritating.

"When it becomes more urgent to relieve the pain and disturbed functional actions of the digestive organs, than to reëstablish the muscular tone, articles of food which are the most *completely* and *rapidly* dissolved should be preferred, without considering the quantity of peptone that they may furnish.

"When it becomes more desirable to reëstablish the muscular tone than to alleviate the gastro-intestinal troubles, we must then, on the contrary, select a nourishment which, for an equal digestive force, furnishes the greatest amount of peptone, so that it may be more slowly dissolved and digested."

It is useless to give but one kind of azotized aliment for any length of time, not only on account of one kind of nitrogenized nutriment (or peptone) being insufficient to repair the various organs, but also because the same nutriment given exclusively and repeatedly (eight consecutive days, for example) ceases sufficiently to excite the gastric secretions, and no longer entirely undergoes digestive transformation.

The author attributes some of the mistaken notions we have entertained of the pancreatic functions, to the fact of conclusions being arrived at by experimental processes, which are in-

correct. For the experiments made by himself, and the unsatisfactory ones of other physiologists, I must refer to the author's text, as they are too numerous to be cited. In speaking of the independent action of the pancreas, he states that the power and influence of the last named organ is such, that in acting upon the nitrogenized elements to transform them into peptones, it can furnish a sufficient quantity of the latter to renovate the entire weight of the body (estimate of the weight being dry) in three hundred days; whilst, on the other hand, the peptones produced by gastric action would accomplish the same result in two hundred days. In order that all may try these experiments, I will give some of the essential conditions laid down by the author as requisite to ensure their success and accuracy.

Supposing we desire to obtain the pancreatic juice by the ordinary method of producing a fistulous opening, and inserting a silver canula into the duct, the following rules must be observed:—

1st. Remembering the *greater rapidity* of pancreatic digestion compared with gastric digestion, we must not prolong pancreatic action beyond four or five hours; otherwise, the conditions will become anti-physiological, because long before this time has elapsed, food submitted inside the body to the action of this juice is not only digested, but has even been absorbed some length of time. Hence, not observing this precaution, putrefaction will necessarily ensue and lead us astray.

2d. To obtain the true and genuine pancreatic juice, capable of digesting, it must not be withdrawn during intestinal fasting. The secretion ceases when the food commences passing into the intestine from the stomach through the pylorus (that is towards the fourth hour after a repast), and reappears when the stomach is empty (which is about the eighth hour).

3d. If we attempt to obtain the experimental results alluded to by an *infusion* from the gland, we must, to be successful, extirpate the gland between the fourth and seventh hours of a good gastric digestion; because if we take it before the fourth hour, its ferment will yet be imperfect; and after the eighth the gland will be exhausted of its contents in consequence of the quantity of pancreatic secretion already furnished. A juice will be obtained, it is true, but not an efficient digestive fluid.

4th. If the juice required to furnish the demonstration should be obtained through the process of a fistula, it is obvious, for the reasons above alluded to, that the fourth hour after a meal should be chosen to perform the operation; otherwise, the stom-

ach, on the one hand, disturbed and irritated, and not being able to accomplish fully its digestive action, will retain the food, and cause the intestine to remain in a state of fasting; on the other hand, the pancreas itself, irritated before the elaboration of its active ferment, will only furnish a vitiated and weak secretion.

In conclusion, it must be remembered that the juice which escapes during the first three hours after the operation is alone to be experimented with. In alluding to the emulsifying property of the pancreas, the author states that those who have *only* succeeded in verifying *this* function have reasoned falsely; because it is impossible to argue against the digestive properties of the pancreatic fluid on nitrogenized food, simply because the pancreas has other functions, such, for instance, as the converting of starchy substances into glucose, or the emulsifying of fats. These properties are entirely distinct. The process of emulsion can go on during *intestinal abstinence*, and is so far from being a *true standard* of pancreatic function, that it can be more readily and largely accomplished *the more vitiated and alkaline the pancreatic juice becomes.*

The pancreas exercises a supplementary function in digesting nourishment which the stomach allows to escape without its having been digested. The pancreas is certainly endowed with a digestive property analagous to that of the stomach, possessing an independent action, and by its power is of equal rank. The author relates an instance, which he witnessed, of a pancreas taken from a man who died suddenly, which digested in four hours almost 3.420 grains of concrete albumen, and 7.752 *grains of fibrine in one hour;* a weight which is equivalent to almost a half day's ration of nitrogenized nourishment allowed to a French cavalry soldier. This, upon a rough calculation, would equal seven ounces and a fraction of albumen, and $1\frac{249}{720}$ of a pound of fibrine. A very necessary condition for the formation of the pancreatic ferment in abundance, seems to depend upon the *quality* of the blood, which is determined by the presence in the latter of peptones made and absorbed by the stomach.

We are now obliged to conclude this brief review, without noting many points of interest to which we had desired to draw attention. The views of the author have, however, been presented in a condensed form, and if all his experiments have not been described, it must be attributed to want of space and time.

A great part of the subsequent portion of the work is devoted to the description of experiments performed with the principal azotized substances, viz:—albumen, fibrine, caseine, &c. An

admirable system has been followed in giving these results, which avoids all confusion. He first takes, for instance, albumen, and subjects it to the influence of the gastric secretion, carefully noting the results; then, entirely reversing the experiment, he places the nitrogenized aliment in the pancreatic fluid, and gives a faithful account of the rapidity and peculiarities of the respective digestions. The last part answers objections made to his experiments and reasoning by those who at first rejected them as inconclusive or erroneous. At some future time we may give additional abstracts, and also the result of some experiments about to be repeated.

CLINICAL REMARKS ON THE VALUE OF BELLADONNA IN THE TREATMENT OF IRITIS.

By JABEZ HOGG, Esq., Assistant-Surgeon Royal Westminster Ophthalmic Hospital; Editor of the Journal of British Ophthalmology.

After a careful examination into the relative value of the various agents for the cure of iritis, and opium in particular, I believe I am perfectly justified in saying that the chief value of the latter consists in its sedative or narcotic principle, when employed in sufficient doses, for the relief of the pain attendant upon the attack. If we take the trouble to examine a little closely into the published cases of alleged cures without mercury, or with opium, we shall find, remarkably enough, that in nearly all, at some period of the treatment another remedy, belladonna, has been employed, perhaps applied externally, in combination with some other potent drug. For example—on looking over the cases published by Dr. Williams, of Boston, we at once notice the secret of his success lies in this practice—he invariably commences the treatment "with an *instillation of a solution of atropine;*" this is ordered to be repeated until complete dilation of the pupil is produced; at the same time iodide of potassium or some other equally efficacious remedy is prescribed in full doses. What better treatment in the majority of cases could be adopted? There are other practitioners, we fear, who, while professing to cure by the agency of morphia alone, do not possess the honesty of Dr. Williams, but are most careful to conceal what they employ in conjunction with their boasted remedy.

It is generally conceded that in all cases of iritis, the greatest possible danger to be apprehended is in the formation of adhesions between the iris and the capsule of the lens, posterior syne-

chia, or between it and the cornea, anterior synechia; the latter is not of very frequent occurrence. In the acute stage of the attack lymph is effused, and the pupillary space wholly or partially obliterated in a comparatively short time, and thus vision will be quickly lost, even should the choroid and retina escape the destructive process set up by the iritis. In milder attacks the danger of synechia and a fixed pupil cannot always be avoided, more especially if the attack is unheeded by the patient, or if not seen by a medical man during the first thirty or forty hours. Even if promptly attended to, the patient may not escape with a perfect iris; and therefore the case can only be said to be cured if no adhesions or irregularity of the pupil remain after the attack has been entirely subdued.

It is quite obvious, indeed, that our chief care in the treatment of this malady must be directed to preserve the iris intact, free from the smallest deposit, and quite circular. To fulfil this indication we must, from the very first, keep the pupil well dilated, and thus place it as much as possible out of harm's way and in a state of rest. To expect to effect this by any so-called constitutional remedies, without at the same time employing belladonna or atropine, is to neglect a most important point of treatment and jeopardize your patient's vision. Whereas, by a liberal use of belladonna or a solution of atropine (2 to 4 grs. to the oz.), or a fiftieth part of a grain of a very finely levigated powder of the sulphate of atropine, applied to the conjunctiva of the lower eyelid, and repeated at intervals of three or four hours, until the pupil becomes fully dilated, and keeping it in this condition, we may, I believe, almost adopt any kind of treatment, or even leave the patient to careful nursing, particularly if the case be one of a non-specific uncomplicated nature. After the pupil has been fully dilated, the further application of atropine once daily is quite sufficient to maintain the full effect and keep the iris free from danger; but if the lymph or interstitial deposits can already be detected, it will be found to be much more difficult to dilate the pupil, and it is under these circumstances that our good old remedies, mercury, iodide of potassium, &c., come into play with the happiest results, and will not only preserve sight, but save the iris from complete disorganization.

In England, the value of mydriatics in the treatment of iritis has been very generally recognized, and always highly esteemed by our ophthalmic surgeons from a very early period. This is not the case in Germany, and some other countries. Dr. Mackenzie, in his early writings, says:—"Belladonna ought to be employed in every case, and in all stages of the disease. The

usual mode of employing it is in extract, moistened to the consistence of cream,* and liberally painted on the brow and eyelids morning and evening. As it is during the night that the disease appears to make most progress, and as during sleep there is a natural closure of the pupil, which must favor the permanent contraction which iritis tends to produce, the evening is evidently the most important time to apply belladonna. After bloodletting it will be found to act much more powerfully in dilating the pupil.

"As soon, in general, as the inflammation has subsided in any considerable degree, and the fibres of the iris have become somewhat freed from effused lymph, the pupil will begin to expand, and even in neglected cases, where it has been allowed to become almost obliterated, the continued use of belladonna for months is sometimes attended by a gradual dilation of the pupil, an elongation of the threads that bind it to the capsule, and a corresponding improvement in vision. After the acute inflammation is gone (subdued by extracting blood, &c.), a filtered aqueous solution of the extract of belladonna, or a solution of the sulphate of atropia, may be dropped into the eye morning and evening; applied thus to the conjunctiva, belladonna has more effect than when painted on the skin, and sometimes breaks through adhesions when smearing the outside of the eyelids has failed."

So little appears to have been known in Germany of the employment of mydriatics, that up to a very recent period we find it stated of a Prussian quack oculist, that he derived a large annual income from patients who literally flocked to him for the cure of cataract, &c. His treatment chiefly consisted in the application of belladonna drops to the eye, belladonna plasters to temples, and mercurials. He kept his secret by supplying his patients with drugs from his own store. It was, therefore, high time some one better qualified for the task should fully satisfy himself of the value of belladonna; and, accordingly, Dr. Graefe, in 1856, published a paper in which he communicates the results of his experiments with mydriatics in the treatment of iritis, "the dangers of which," he says, "in general have materially diminished, since the introduction of a bold use of mydriatic remedies in the acute form."

[There are some people in whom great irritation follows the use of this drug. No matter what preparation is made use of, the distress to the patient is equally great.]

* Glycerine is the best vehicle for dissolving or thinning the extract, and possesses great advantage over water; it keeps moist for a long time when applied to the brow.

In such cases (of iritis), as well as where there is any intolerance of the drug, I am in the habit of taking away a small quantity of blood from the temple, by cupping, or by leeches applied either to the nose or lower eyelid; and should this fail, to paracentesis or division of the ciliary structures; especially the latter where there is diffuse cloudiness of the aqueous humor. Many of these to-be apprehended evils are in part, if not wholly due to some impurity of the drug; at other times to the careless preparation of its solution, such as dissolving the atropia in the strongest spirit of wine, or adding more spirit than is actually wanted to facilitate its perfect solution in the distilled water. Again, sometimes very strong solutions are employed, which, in my opinion, are highly objectionable. In no case have I found it necessary to exceed 4 grs. to the oz., and more frequently I employ a 2 gr. solution. Nothing, indeed, answers so well as the latter; and if this cannot be borne, we shall find it advantageous to apply over the brow an ointment of the sulphate of atropine, or the belladonna liniment of the British Pharmacopœia, both of which are efficient preparations. Their action is of course much slower, but in peculiar cases this is decidedly an advantage over the effects produced by the more rapidly acting solutions, which may certainly be classed among the abuses of this valuable agent in those peculiar forms of eye disease requiring the application of mydriatics to affect the movements of the iris.—*Journal of British Ophthalmology, October*, 1864, *p.* 54.

ON TREATMENT OF SQUINT BY OPERATION.

By J. W. HULKE, Esq., Surgeon to the Royal London Ophthalmic Hospital, Moorfields.

[This article is a review of 106 cases of squint treated by operation, with remarks upon the operation. In 50 cases of convergent squint, Mr. Hulke adopted the operation in general use by his colleagues, and which he distinguishes as "the Moorfields' operation." In the remaining 49 he adopted the operation of Von Graefe; which operations he then proceeds to describe.]

In the Moorfields' operation, the eyelids having been separated with a spring speculum, the assistant turns the cornea outwards, seizing, for this purpose, the conjunctiva boldly, close to the outer border of the cornea, with a rats-toothed forceps. The operator seizes, with a similar forceps, a small fold of con-

junctiva, nearly midway between the inner edge of the cornea and the caruncle, just over the lower border of the tendon of the Rectus internus, and snips it with slender blunt-pointed scissors, so as to make a small horizontal incision. The fascia, which this incision exposes, is in turn snipt through. Next, a blunt hook, with rather a large curve, is passed through the wound beneath the tendon, which is put on the stretch by slightly raising the hook, and divided with small snips of the scissors between the hook and the sclerotic.

The advantages claimed for this operation are those which it possesses in virtue of its subcutaneous character, and the absence of that recession of the caruncle and undue prominence of the eyeball which are not infrequently observed where the conjunctiva has been freely divided.

I believe that these advantages are gained where care is taken to keep the conjunctival wound small, where unnecessary disturbance of the fascia is avoided by using a hook with not too large a curve, and by not sweeping the hook too widely in search of the tendon, where the tendon is divided strictly at its insertion, and by small snips without a wide separation of the scissorblades, and where the fascia is only cut to the requisite extent for the perfect division of the tendon. Where these precautions are neglected, the Moorfields' operation loses somewhat its subconjunctival character, and should an unnecessary division of the fascia oculi have been made, retraction of the caruncle will hardly be absent when cicatrisation is complete.

The objections that the operation is not so easily performed, and that the complete division of the tendon is not so certainly known as where a free division of the conjunctiva and fascia over the tendon is practised, deserves little consideration; for the greater difficulty, if indeed it exists, is more than outweighed by the superior results of the subconjunctival operation, and because the surgeon may rest assured that the tendon has been thoroughly divided if he can bring his hook up to the edge of the cornea. The thrombus and ecchymosis, which are not very infrequent after this operation, are more real objections, though they may be partly avoided by making a counter-wound over the upper edge of the tendon, under cover of the upper eyelid.

In v. Graefe's operation, the eyelids are separated, and the eye is turned outward by an assistant, in the same manner as in the Moorfields' operation. The surgeon makes a small opening in the conjunctiva, with sharp-pointed scissors (which are curved on the flat, and have an eccentric hinge), between the insertion of the tendon and the inner edge of the cornea, but

rather nearer the upper or lower edge of the tendon. He then slides the scissor-points beneath the conjunctiva, and snips a small hole in the fascia, through which he passes a hook (with a slightly swollen end and shorter curve than that used in the Moorfields' operation) under the tendon, which he stretches by pushing it on the convexity of the hook towards the cornea, and cuts at its insertion. The external wound need scarcely be larger than in the Moorfields' method, and when the operation has been well performed it as rarely inflames and suppurates. The button of granulations, which is not infrequently very troublesome after operations where all the tissues have been freely divided, occurred in only one of my 49 cases. I think there is less infiltration than after the Moorfields' method, the directness of the wound allowing the blood to escape readily. In both methods I think that the tendon is cut with equal certainty, and at the same point.

[After giving a tabular view of the cases, the author describes "Pritchett's operation" as follows:]

In this operation, the conjunctiva is divided near the inner border of the cornea, and dissected in a flap, together with the fascia off the inner side of the globe. This liberates the tendon of the Rectus internus from its acquired faulty place of insertion. The Rectus externus is next divided, in order to allow a sufficient inversion of the cornea. Lastly, the wound at the inner side of the eye is closed with fine silk stitches, after removing so much of the free edge of the conjunctival flap, that the closure of the wound draws the sunken caruncle forward, and gives the cornea a slight convergence. The tendon of the Rectus internus which has been brought forward with the fascia and conjunctiva, unites itself to the globe at an anterior point, nearer the situation of its normal insertion. The fine stitches give little trouble; they fall out in a few days, or they may be removed at the end of a week. Slight convergence is always desirable at first, because the cicatrix at the inner side of the eye always yields to some extent, and if at the time of the operation the vertical meridian of the cornea has only been brought to the middle of the lid, the final correction of the divergence will be imperfect.—*Ophthalmic Hospital Reports, Vol.* iv, 1864, *p.* 160.

Book Notices.

PROCEEDINGS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION, at its Twelfth Annual Meeting, held in Cincinnati, O., September, 1864. Also, the REVISED CONSTITUTION AND ROLL OF MEMBERS. Philadelphia: MERRIHEW & SON, Printers, 243 Arch Street. 1864.

This is a neatly bound volume, of 355 pages. In addition to a full record of the proceedings of the last Annual Meeting of the American Pharmaceutical Association, it contains reports and papers on the following subjects, viz.:—Report on the Progress of Pharmacy; on the Drug Market; on the Preparations of Cinchona; on the Extraction and Preservation of Lard; on the Solubility of Camphor in Water; on the Aqueous Extract of Jalap; on the Pharmaceutist as a Merchant; on the Sweet-Gum Tree; on Tobacco; Preparation and Dispensing of Plasters; Bitter Wine of Iron; Glycerin—its Mission; on Spatulas, Stirring Rods, &c.; on a Test for the Resin of Cannabis Indica; on Pyrethrum Roseum; The Press; on the Odor of Commercial Tannic Acid; on the Preservation of Garlic; on a Brandy Substitute; on Capsicum; Remarks on Dialysis; on Southern Prickly-Ash Bark; a Systematic Course of Study and Manipulation for Students of Pharmacy; on the Assay of French Brandy and Whiskey; on the Quality of Sherry Wine of our Commerce, and its Assay; on Some Medicinal Spirits; Practical Observations on the Manufacture of Æthereum Oleum; Plan and Description of Balance for Apothecaries' Uses; Description of a New Balance for Use without Weights, &c.

Many of the foregoing articles are short, but they are all of more or less interest and importance, and they constitute a volume which should be in the hands of every Druggist and Apothecary throughout the country.

While it is of special interest to the Druggist, it is also well worthy of perusal by the Practising Physician. Copies of the work may be obtained of E. H. SARGENT, corner of Randolph and State Streets, Chicago. Price $1,50.

ALPHABETICAL INDEX TO BRAITHWAITE'S RETROSPECT. Embracing Parts 1 to 50—1840—1865. Comprising Twenty-five Years of Republication.

This is a volume of 248 pages, consisting of a full and conveniently arranged Index, of almost inestimable value to all who wish to refer to the past volumes of BRAITHWAITE for the last twenty-five years. Its publication confers a great favor on the Profession. For sale at the Book Stores in this City. Price $1,00.

RECENT PROGRESS IN SURGERY. The Annual Address delivered before the Massachusetts Medical Society, May 25th, 1864. By JOHN MASON WARREN, M.D. Boston: 1864.

This is a well-written and instructive address, printed on excellent type and paper. It gives a clear exposition of the progress made in the pathology and practice of Surgery during the last quarter of a century.

Editorial.

ANNUAL MEETING OF AMERICAN MEDICAL ASSOCIATION.—We are happy to learn from the Assistant-Secretary in Boston, that whatever differences of opinion had existed in the Committee of Arrangements, in regard to the Annual Meeting, have been reconciled; and that the Committee are now cordially united and actively preparing for the meeting on the first Tuesday in June next. We are assured that the members of the Association will meet with as cordial a reception in Boston, as has been extended to them in any other city; and we are confident that the business arrangements will be so perfect, as to render the meeting more interesting and profitable than any that have preceded it. Let every Medical Society in the North-West secure the appointment of such delegates as will attend.

CHICAGO MEDICAL SOCIETY—*Annual Meeting.*—The Annual Meeting of this Society was held on the evening of April 7th, 1865. The following officers and delegates were elected, viz.:—

For President,---------- Thos. Bevan, M.D.
For Vice President,---------- E. Marguerat, M.D.
For Secretary and Treasurer, D. N. Tucker, M.D.

Delegates to the Illinois State Medical Society.—Drs. E. L. Holmes, John Reid, A. Fisher, O. Smith, and M. O. Heydock.

Delegates to the American Medical Association.—Drs. C. G. Smith, R. C. Hamill, G. Paoli, T. D. Fitch, and E. L. Holmes.

New York Medical Journal.—We have just received the first (April) number of a new medical journal, with the foregoing title, published in New York City. It is to be issued monthly, containing at least eighty pages, and the subscription price is *five* dollars per annum. The present number is published in excellent style, and its contents are varied and interesting. The only fault we have to find with it, is, the absence of the *name* of its editor. The names of a long list of able "collaborators" are given, but no editor, no responsible head, no master mind, whose individuality is to impress itself on the general character of the work. Notwithstanding this fault, however, we gladly place it on our exchange list, and cordially commend it to the patronage of the profession.

The Purification of the Press.—The London medical journals have entered upon an earnest crusade against the growing indecency of the public press in admitting to their columns the obscene advertisements of quacks, which promises the most satisfactory results. Already many of the leading papers throughout the kingdom have signified their intention to exclude such matter from their columns in future, and public opinion seems at last thoroughly aroused to the enormity of this offence against decency and morality. The immediate occasion of this healthy movement was the late exposure in the courts, by a victim of these extortionate quacks, who possessed a rare moral courage, of their nefarious system of robbing. Its success is all the more gratifying, as it suggests the possibility of similar reformation this side of the Atlantic. How much it is needed here need scarcely be told. We have but to look at the entire surface of some of our journals to find how largely they are de-

voted to the dissemination, not only of the grossest indecencies, but of future misery to a multitude of readers. Such papers are put into the hands of boys and girls of all ages, and find their way to the table of all classes of society, corrupting the purity of the young, arousing the fears of the weak, and encouraging vice by offers of immunity and relief. So outrageous has this system become, that no longer satisfied with the publicity of the largest type in our daily press, the venders of quack medicines and secret remedies paint their obscene notices in the most exposed places by every roadside. It is indeed time that our Legislature should turn its attention to this subject.

No one outside our profession, and we only to a small extent, can estimate the amount of bodily harm and loss of money inflicted upon the unwary and ignorant, who, induced by such advertisements, place themselves once within the power of these quacks. A large sum of money is at once demanded before the promised cure is undertaken, and the fears of the victim are so worked upon, during a treatment purposely designed to aggravate the disease, that he is obliged to pay additional sums until his means are exhausted. We were recently informed by a gentleman, whose official position led to the discovery, that two of the best houses in a certain fashionable street in this city were owned and occupied, under false names, by two of the most notorious of these advertising scoundrels.

There is another class of advertisements, less indecent, but quite as objectionable on the grounds of inhumanity and injustice to the people, of whom they profess to be the guardians, that fill the columns of our journals almost without exception. These are the notices of the innumerable remedies, patent medicines, and itinerants, which display their deceitful promises to the credulous eyes of the sick throughout the land. Our Sunday and religious papers are particularly devoted to the interests of these systems of robbery, and seem even less able to resist the temptation of a large fee than their more worldly daily brethren. The proprietors of such journals cannot screen themselves from the consequences of the course they pursue on the plea of an honest belief in the statements they publish, for no one is better informed than they of the short success of each new remedy or quack they introduce to the public, nor would they dare rely upon them for personal relief in sickness. The amount of evil they thus foster, and for which they are directly responsible, may be in part estimated by the magnitude of the sums received for advertising, which amount to millions in a

single year. This, of course, represents only the pecuniary loss, which falls chiefly upon the poor and middle classes of society; the amount of physical suffering and disease thus occasioned cannot be estimated.

We hope that some of our leading journals will take this matter up, and not only proclaim their own intention of excluding all advertisements of this class in future, but, as in England, insist upon a uniform standard in this respect, upon which the respectability of all others shall be judged. Such a reform in their own conduct will give them the moral weight of self-purity in their judgment of the affairs of others, and gain the commendation and respect of all their readers.

The foregoing constitutes a recent editorial in the *Boston Medical and Surgical Journal.* We copy it for the purpose of fully endorsing its sentiments. There are but few things in modern society that illustrate more clearly the readiness with which a just sense of responsibility may be smothered for a pecuniary consideration, than the almost universal prostitution of the public press to the basest and most deceptive class of advertisements. Ask the proprietors of any respectable newspaper, whether secular or religious, if they have the slightest confidence in the pretensions set forth in the medical advertisements that help to fill its columns, and they will tell you promptly no; and freely admit that, as a general rule, they are simply lying and deceptive statements, designed to deceive the credulous and afflicted, for the sole purpose of bringing money to the pockets of their authors—in other words, a plausible mode of obtaining money under false pretences. And yet they attempt to screen themselves from all responsibility, under the plea that the statements are in the form of advertisements. However true such a plea may be in law, it certainly is not good in morals. For the confidence that a large proportion of newspaper readers place in the advertisements, is in direct ratio to the confidence they have in the reading matter of the paper generally, and in the intelligence of those who edit and publish it. Thus, you ask almost any one who has been spending his money for this or that *panacea*, why they were so foolish, and they will tell you promptly they saw it advertised and recommended in their own favorite newspaper, and they thought there must

be some virtue in it, or it would not have been put into the *Tribune*, the *Times*, the New York *Independent*, or the *Christian Advocate*, as the case may be, thereby showing that the character of the paper has a direct influence on the confidence given to its advertisements. And there is no good reason why the editors and proprietors of a paper should not be held as rigidly responsible for the character of its advertisements, as for that of its editorials.

SULPHURIC ETHER VERSUS CHLOROFORM. By F. D. LENTE, M.D., Cold Spring, N. Y.

Is it justifiable to use a remedy which has undeniably killed its hundreds, when we have an equally efficient one, with ordinary care, perfectly safe?

This is a question which should force itself upon the attention of every medical man who has occasion to use anæsthetics in surgery; it is a question of vital interest to his science and to his patients; it is a question which, I presume, any man would unhesitatingly answer in the negative; and yet a majority, perhaps, of surgeons are still risking the lives of their patients with chloroform, when they have, in sulphuric ether, an agent which has been *proved* to be equally efficacious, and which is admitted to be almost, if not altogether, perfectly safe. The question as to its safety, and the statistics bearing on the point, may be found fully discussed in an article furnished by me to the April (1861) number of the *American Journal of the Medical Sciences*, and in the Report of the Committee of the "Boston Society for Medical Improvement," published soon after, and need not be again canvassed now. As regards the proofs of its efficacy, it is only necessary to point to the hospitals in this country, but especially in Italy, where no other anæsthetic is used, and where immunity from pain is as perfect as elsewhere. But especially would I beg attention again to the statistics of the Mill Creek Military Hospital, Fortress Monroe, published by me in the June 28 number of the *American Medical Times* for 1862. There the quantity administered was reckoned by drachms, not by ounces, and the time one to two minutes. These results were witnessed, with considerable astonishment, by many military surgeons, and by some of the ablest civil surgeons and physicians in the country, some of them by the late Surgeon-General of the Army. Therefore their authenticity cannot be questioned. I have subsequently, also, in the same Journal, published, from my private practice, equally success-

ful and not selected cases, duly authenticated by well known medical men. Therefore, this fact I regard as settled—that a patient may be brought under the influence of sulphuric ether as quickly as he can safely by chloroform, and with a quantity costing less, and weighing but little more than the requisite amount of the latter. The objection, then, sometimes raised by army surgeons, of increased trouble of transportation, is not tenable.

If any one doubts this fact, after referring to the statistics above alluded to, *I will agree to go to any hospital where a large number of operations are being performed, and demonstrate it to the satisfaction of the opponents of ether.* To be the humble means of preventing some of the sacrifice of life which is almost daily occurring from the use of chloroform in surgery, would warrant a much greater sacrifice of time and trouble than this.

The recently published report of the Royal Medical and Chirurgical Society of London, adverse to the employment of sulphuric ether, and the recent occurrence of so many additional cases of death from *chloroform poisoning*, have forcibly recalled my attention to this subject, and, at the risk of a charge of egotism, induced me to make the offer which I here repeat; in other words, that is, to guarantee to get a number of patients, in any hospital, under full anæthesia with sulphuric ether in as short a time as can safely be done with chloroform, and with a quantity not exceeding an average of two ounces and a half, the average time two minutes and a half. The average time and quantity would probably be less in the ordinary run of hospital cases, (not more than half as much in cases of considerable debility, and after hemorrhage or insufficient nourishment, as in many cases in military surgery.)

I close this article by quoting the "remarks" appended to a fatal case of chloroform poisoning, published in the last number of the *American Journal of Medical Science*, and by referring to another case of recent occurrence, not yet published in a medical journal, that I am aware of. "*Remarks.*—This case presents several points of interest. The drug was administered by a medical officer, five others being present, and it is unnecessary to say that due care was observed to guard against accident. Only a few weeks before, the anæsthetic had been given to the same individual in a much larger quantity, a fact which, in connection with the absence of visceral lesions, proves that there was nothing to contra-indicate the employment of the agent." These "remarks" are but a repetition of what we re-

mark in every similar case, namely, that due care has been used, and that no human skill can enable us to foresee or prevent the dangers of chloroform. Can further comment be necessary? A former patient of mine, a young and gallant Colonel of one of our regiments, died recently in a neighboring village, of chloroform, administered, I believe, for the performance of some trifling operation.

The above is copied from the original department of the New York *Medical Journal*, for the purpose of fixing the attention of our readers, more fully, on the dangers attending the administration of chloroform, and of anesthetics generally. That the whole number of deaths induced by the use use of chloroform, directly, is very large, no one can deny. That many of these deaths have occurred without any fault in the time or mode of administering the agent, is equally certain; and, hence it cannot be truthfully said that its inhalation is actually free from danger in any single case. Its remote effects on the plasticity of the blood, and the properties of the solids, is also worthy of careful and thorough investigation. We strongly suspect that future investigations will show that the very general use of chloroform in surgical practice is far from having been an unalloyed boon to the human race. But, while we freely admit the dangers arising from the use of chloroform, is it true that sulphuric ether is actually *free* from danger, and can therefore be administered with impunity? That its inhalation is much less dangerous than chloroform, has been clearly shown by the statistics of the past. But that it is actually free from liability to produce fatal results, as would be inferred from the statements of Dr. LENTE, and others, we do not believe. Indeed, if ether could be at once substituted for chloroform, and thereby used by the same number and variety of patients, we do not believe ninety days would elapse without developing some fatal results. This opinion is founded partly on facts in relation to the effects of ether in several cases, in which it was administered by surgeons of much experience and skill, but in which respiration was so uniformly and completely suspended before sensibility was overcome, that the attempts at anesthesia had to be abandoned; and partly on the known relations of the different parts

of the nervous system to each other. The practicability and safety of anesthesia, by any agent whatever, depend on the physiological facts that the nervous centres of ordinary sensation and voluntary motion are separate from those of respiration and circulation, and that the functions of the first are capable of being suspended by the inhalation of certain agents, without simultaneously suspending those of the latter also. The safety of the inhalation in any given case, depends on the order, as to time, in which the two sets of nervous centres are influenced by the agent used, and the skill of the operator in keeping the effect from extending beyond the centres controlling ordinary sensation and motion. Experience has shown that, in the best majority of individuals of both sexes, and all ages, chloroform, ether, and nitrous oxide, all affect the nervous centres of sensation, voluntary motion, and mental action, before materially influencing those of respiration, circulation, &c.; but it has equally shown that in a small percentage of the whole number, the reverse happens, and the excito-motory or involuntary centres are first influenced by the anesthetic. And this is, undoubtedly, the cause of most of the sudden and unexpectedly fatal results.

That chloroform is more apt to extend its influence to the excito-motory centres than ether, or nitrous oxide, and therefore much more dangerous, we have no doubt. But that the latter agents are absolutely safe, as represented by some, we do not believe. The whole subject of anesthetics and anesthesia, requires further investigation, in connection with the physiological relations of different portions of the nervous system to each other.

Illinois State Medical Society.—The following is the list of Committees expected to report at the Annual Meeting of the State Medical Society, to be held in Bloomington, on the fir Tuesday in May, 1865:—

Committee on Practical Medicine and Epidemics: J. Adams Allen, M.D., of Chicago; C. Goodbrake, M.D., of Clinton; H. Noble, M.D., of Hayworth.

Committee on Surgery: D. W. Young, M.D., of Aurora; A.

L. McArthur, M.D., of Joliet; L. T. Hewins, M.D., of Oak Alla.

Committee on Obstetrics: W. H. Byford, M.D., of Chicago; Lucius Clark, M.D., of Rockford; S. T. Trowbridge, M.D., of Decatur.

Committee on Drugs and Medicines: John Bartlett, M.D., of Chicago; F. R. Payne, M.D., of Marshall; T. D. Fitch, M.D., of Chicago.

Committee on Ophthalmology: E. L. Holmes, M.D., of Chicago; R. E. McVey, M.D., of Waverly; J. S. Whitmire, M.D., of Metamora; F. B. Haller, M.D., of Vandalia.

Committee on Spotted Fever: J. S. Jewell, M.D., of Chicago.

Committee on Orthopœdic Surgery: David Prince, M.D., of Jacksonville.

The Committee of Arrangements and the Profession in Bloomington are preparing to give the Society a cordial reception, and we trust the coming meeting will be larger and more profitable than any that have preceded it. We hope the committees will have their reports fully prepared.

American Medical Association.—The American Medical Association will hold its Sixteenth Annual Meeting in the City of Boston, on Tuesday, June 6th, 1865.

The following Committees are expected to report:—

On Insanity—Dr. H. R. Storer, Mass., Chairman.

On Exsection and its connection with Conservative Surgery—Dr. Lewis A. Sayres, N. Y., Chairman.

On Drainage and Sewerage of Large Cities, and their Influence on Public Health—Dr. W. J. C. Duhamel, D. C., Chairman.

On Alcohol and its Relations to Man—Dr. G. E. Morgan, Maryland, Chairman.

On Quarantine—Dr. Wilson Jewell, Penn., Chairman.

On Medical Ethics—Dr. John A. Murphy, Ohio, Chairman.

On the Microscope—Dr. James M. Corse, Penn., Chairman.

On the Relations which Electricity sustains to the Causes of Disease—Dr. Squire Littell, Penn., Chairman.

On the Morbid and Therapeutic Effects of Mental and Moral Influences—Dr. A. B. Palmer, Mich., Chairman.

On the Causes of the Extinction of the Aboriginal Races of America—Dr. Geo. V. Suckley, Md., Chairman.

On the Causes and Treatment of Ununited Fractures—Dr. Frank H. Hamilton, N. Y., Chairman.

On Diphtheria—Dr. Lucius Clark, Ill., Chairman.

On the Uses and Abuses of Pessaries—Dr. James P. White, N. Y., Chairman.

On International Medical Ethics—Dr. J. Baxter Upham, Mass., Chairman.

On Climatology and Epidemic Diseases—Dr. C. W. Parsons, R. I., Chairman.

On Autopsies in Relation to Medical Jurisprudence—Dr. T. C. Finnell, N. Y., Chairman.

On so-called Spotted Fever—Dr. James J. Levick, Penn., Chairman.

On the Introduction of Disease by Commerce, and the Means of its Prevention—Dr. A. Nelson Bell, N. Y., Chairman.

On Patent Rights and Medical Men—Dr. David Prince, Ill., Chairman.

On Revision of Plan of Organization—Dr. N. S. Davis, Ill., Chairman.

On Specialists—Dr. J. Homberger, N. Y., Chairman.

On Compulsory Vaccination—Dr. A. N. Bell, N. Y., Chairman.

On Rank of Medical Corps in the Army—Dr. C. S. Tripler, U.S.A., Chairman.

On Rank of Medical Corps in the Navy—Dr. T. L. Smith, N. Y., Chairman.

WM. B. ATKINSON, *Permanent Secretary.*

Practical Items.—The following paragraphs are copied from the proceedings of the Kings Co. Medical Society, as published in the *Buffalo Medical and Surgical Journal*, for March, 1865:—

Specimen of Entozoa.—Dr. Spier presented an interesting specimen of entozoa, taken from the right side of the heart of a dog. In the evening, the animal was in perfect health, but on the following morning was found dead. On opening the heart these *worms* were found (dead) in the right ventricle.

In reply to a question, the doctor stated that he had never found these animals in the human heart, but had discovered them in the kidneys. In this ventricle two were found, besides a clot of blood. The question here recurred, how did they get into the ventricle?

Dr. Enos looked upon it as a very interesting subject, and well worthy of being thoroughly sifted.

Pyemia.—Dr. Spier also presented a specimen of pyemia. The subject was a man who recently died in the Brooklyn City

Hospital. He had been operated upon a short time previously for a compound fracture of the leg. Gangrene set in, in the stump, and the man died. On *post mortem*, found the blood-vessels, especially the superficial veins, distended with air. The blood was also *oily*, which seemed under the microscope to be principally *margarine*. The liver was waxy, but the other organs of the body appeared to be healthy. Air was also found in the cephalic vein.

Therapeutics.—Dr. C. L. Mitchell called attention to his recent experience in the effects of certain remedies.

1.—Quinine, which for the last year he had found remarkably beneficial in allaying bronchial irritation, especially in children. He has used it in some cases of almost incessant cough, and had found it successful, after the failure of all the more usual anodyne expectorant remedies. In the bronchial irritation of pneumonia he had found it equally effectual and reliable. He cited the case of a child, aged 11, with excessive bronchial irritation, causing almost incessant cough, following measles. Skin dry, pulse 120, anorexia, and extreme feebleness. A grain of quinine every two hours, was followed by immediately beneficial effects, and a speedy recovery.

A case of hay asthma was last year much benefited, and this year wholly overcome by the use of quinine. He also alluded to the good effects of quinine in infantile convulsions, previously reported; and to its almost specific effects in neuralgia, especially in cases of miasmatic origin. He had recently had a most inveterate case, that had resisted other remedies, to whom he prescribed three grains every two or three hours, subsequently five grains, and finally ten every hour, which effectually subdued the disease, without any very unpleasant effects. There was a little tinnitus aurium, and decided sedative effects —lessened frequency of the pulse—and quiet sleep, of which the patient was in great need.

Dr. McClellan's experiences in the use of quinine, for the last year or two, confirmed that of Dr. Mitchell. He frequently prescribed it in bronchial irritation following measles or other causes, and considered it a remedy of great value in such cases. He had recently used it in two cases of children, with persistent barking cough, with perfect relief. In these cases he prescribed two grains four times a day.

Turpentine in Chorea.—Dr. Crane asked the experience of the members, in regard to the use of *turpentine in the treatment of chorea.*

Dr. McClellan related two cases which he had treated with turpentine, since hearing it spoken of by Dr. Crane. The first case was of two years' duration, in a child six years of age; turpentine was at first given in cathartic doses with marked benefit, and afterwards fifteen drops three times a day for a fortnight, when the chorea ceased. The second case came under his observation one month ago—was treated with small doses of turpentine with same result.

Dr. Crane reported a case of strongly marked chorea, a girl aged 10; this was an acute case. The patient was first treated with mercurial cathartics, and carb. ferri. She grew worse and worse, becoming idiotic, with loss of the power of locomotion and articulation, and the irregular motions persisted during sleep. He then gave two teaspoonfuls of turpentine on account of the mother's suspicion of worms. No worms were passed, but the patient's symptoms were relieved, and three days after the dose was repeated, with the same results. This was continued twice a week with marked benefit, for a month or six weeks, when the child was completely relieved, and there has been no recurrence of the disease.

Removal of foreign bodies from the Nostrils.—Dr. Enos exhibited a bean which was removed from the nose of a child about five years of age. He did so for the purpose of speaking of a simple mode of removing foreign bodies from the nostrils—a mode which, though not mentioned in the books, he has found very easy and efficacious. He would call it the blowing process. The manner is this: the child being in an upright position, place your mouth upon the *open* mouth of the child, and while with one finger you strongly compress the unobstructed nostril, blow somewhat forcibly and repeatedly, till the foreign body is forced out. The rationale of course is simple. When the air-passages of the child are filled, the column of air mounts over the velum into the nares, and impinges upon the posterior surface of the obstructing body, and forces it forward. Sometimes it will be forcibly ejected several yards.

The Larynx of the Negro. By George D. Gibb, M.D., &c. (Read before the meeting of the British Association for the Advancement of Science, September, 1864.)

The author's paper was upon the special difference between the larynx of the negro and the white man. After describing the larynx of the latter, he remarked that the essential point of difference between the two consisted in the invariable presence

of the cartilages of Wrisberg, the oblique or shelving position of the true vocal cords, and the pendent position of the ventricles of Morgagni. Any one familiar, said the author, with the dissection or examination of the larynx in ourselves, cannot but perceive that these peculiarities are not observable, unless we will admit the occasional presence of the first in certain windpipes. Now, we may be told by some anatomists, that they have commonly seen these Wrisbergian bodies, and that they are not rare, but that sort of evidence counts for very little. These small bodies (the cartilages of Wrisberg) are either very minute and rudimentary, or wholly wanting in the white race, whilst they are large and well developed and always present in the black or colored races. It may be mentioned, also, that I have dissected them in monkeys, in whom, even the smallest species, they are relatively large in comparison to the size of their bodies; and, with the object of attracting attention to them in the quadrumana, I exhibited specimens before the Pathological Society of London, in March, 1861, three and a-half years ago. Those who argue that the black race are inferior to the white, and approach the quadrumana in some of their features, would naturally lay hold of what I have stated to prove the truth of this theory, especially as regards the Wrisbergian cartilages and the position of the ventricles. But I take the opportunity of declaring at once, that whatever views may be entertained by anthropologists respecting the position in the scale of being occupied by black and white, they are discarded from this communication.

Dr. Crisp remarked on this paper, that even if Dr. Gibb was right, and these cartilages pointed out existed, it was no proof of the degradation of the Negro. Extraordinary statements had been made on this subject. It might be that these particular cartilages were given to the Negro just the same as a black skin was given him, and thus did not imply the least degradation.

Mr. Carter Blake called attention to the statement of the late Prof. Eschricht, who found the cricothyroid muscles very large in the Negro, a portion of their fibres ascending to the internal surface of the thyroid cartilage. M. Pruner-Bey had suggested that this might be a trace of the internal cricothyroid muscles of the *hylobates*. Perhaps Dr. Gibb would offer some opinion on this hypothesis?

In reply to questions from the Rev. Dr. Macauley and Dr. Heaton, Dr. Gibb said that he had examined the larynxes of 100 white men and 58 blacks, and he had in every case found

sufficient distinction to warrant him in introducing the subject to the notice of the Association.—*Anthropological Review, Nov.*, 1864, p. 322.

We commend this subject to the attention of American anatomists and anthropologists. In no other country in the world are there so many facilities for settling the point raised by Dr. Gibb as in our own, and we trust the matter will not be allowed to remain long in dispute.—*N. Y. Med. Jour.*

REPORT OF THE WEIGHTS AND MEASURES USED IN PHARMACY.

By Mr. BARNARD S. PROCTOR.

[*Abstract.*]

"The author first made a comparison of the apothecaries' weights of our country with those of other civilized nations. Though there are forty different European pounds and as many ounces in general use, there were only two or three systems of pharmaceutical weights, and these not widely differing from each other. The English system, though good in the abstract, had no simple relation to the systems of other countries, nor to the other weights and measures of this country. Some of its own members were in an anomaulous position, What was a fluid pound of apothecaries' weight? Was it 12 avoirdupois ounces, 12 troy ounces, or 16 avoirdupois ounces? A critical examination was then made of several suggested alterations in the weights and measures of pharmacy, those of Mr. Jacob Bell, Mr. Griffin, Dr. C. Wilson, and Mr. Warington, being especially noticed. The advantages and disadvantages of the weights and measures authorized by the Medical Council in the new Pharmacopœia were next reviewed, and a suggestion made that the ounce of that system should be divided into drachms and scruples. To get rid of the fractions of a grain, which would otherwise be appended to these drachms and scruples, the author proposed that the value of the grain should be slightly increased; so that, instead of 18·229 grains being contained in one scruple, there should be only 18; instead of 54·687 in the drachm, there should be but 54; and 432 in the ounce, instead of, as now, 437·5. This was as near an approach to an amalgamation of the troy and apothecaries' system as he could devise. The elaborate and ambitious system proposed by the American Pharmaceutical Association was next noticed, and then the French metrical system, the merits and demerits of all under various circumstances

being carefully weighed. For ultimate general adoption, the author thought the American octonary system to be superior to the metric decimal system; that, in short, doubling and halving a number was better than multiplying or dividing by ten. He concluded by proposing the use of the American system, modified to meet the requirements and customs of the English."—*Proc. Brit. Phar. Conf.*

THE BLACK TROOPS OF THE BRITISH ARMY AND CONSUMPTION.—There are some thousands of black troops in the service of the Crown. In Ceylon, the mortality is much lower among the native than among the white troops; but in the West Indies, where also there are both black and white, it is very decidedly otherwise. In Jamaica, the mortality among the black troops was 30.25 per 1000 of mean strength; among the white troops only 12.81. Mr. O'Flaherty, the principal medical officer in that command, remarks that the black soldier to outward view is apparently strong and muscular, but when sick, he has comparatively little power of resisting or sustaining disease, and fatal cases of consumption are seldom protracted to the advanced stages commonly observed among European soldiers. It must be borne in mind that the black recruit undergoes a very trying change, on enlisting, from almost complete idleness, and a semi-savage state of existence, to a life of order, regularity, and continued exertion in learning his work during the first two years; the white corps brings no soldiers in the recruit stage. In Jamaica, also, the black troops have much heavier duty than the white, and have been provided with only two meals a day, at 8 A.M., and at noon, leaving them for nearly twenty hours without any regularly provided sustenance: but the medical officer had recommended the addition of an evening meal. The liability of the black troops to consumption is remarkable, also, in the returns for West Africa. At the Gambia, the deaths from consumption and diseases of the lungs, in the four years, 1859–62, were as many as 17.64 per 1000 *per annum*. The mortality from all causes in the year 1862, exceeded 28 per 1000 at Sierra Leone, the Gold Coast, and Lagos; there are no European troops there to allow of a comparison of mortality.—*Brit. Med. Jour., Oct.* 29, 1865.

The increased experience of our own Army Medical Officers, has led them to opinions which are in accordance with those expressed in the foregoing article. The negro has not the ability to resist morbific influences which is possessed by the European, unless it is in the simple matter of malarious diseases,

and even in this, there is room for doubt. The medical officers having charge of the negroes liberated by our armies on the lower Mississippi, unite in the opinion that they are not in the least exempt from the action of malarial poison, and the writer saw for himself that such is the case. Undoubtedly, however, a great deal of the sickness and mortality which prevailed among the blacks a year ago, in the localities referred to, was due to the entire neglect by those in power of the recommendations of the medical authorities, relative to food, clothing, and other matters affecting their hygienic condition.—*N. Y. Med. Jour.*

On the Internal Employment of Essence of Turpentine in the Headaches of Nervous Women.—M. Teissier thus describes the kind of cases of nervous headache in which he has found the essence of turpentine to be beneficial. The affection, he says, is a common, but often very severe one, and should not be confounded with ordinary neuralgia, either periodic or irregular, of the face or cranium, or even with hemicrania. This cephalæ is characterized by a much more fixed and continuous pain in the head, and may last not only several weeks, but months and entire years, without presenting more than rare and slight intermissions. The pain is sometimes dull, sometimes shooting, and sometimes pulsative, occupying only a single point of the head or the whole of the cranium, being accompanied by nausea or even vomiting, and complicated besides with much more serious symptoms, such as vertigo, and tendency to syncope, inability to think or to work, despondency, weariness of life, and, sometimes, numbness in the limbs. It is especially observed in nervous women, with exalted sensibility, of a delicate constitution, somewhat anæmic, and especially hysterical. It often co-exists with dysmenorrhœa, amenorrhœa, and also with a tendency to excessive menstruation, although it is sometimes observed in persons of good constitution whose menses are regular. M. Teissier observes that many remedies already exist which are efficacious in this complaint, such as valerian, assafœtida, the ethers, cyanide of potassium, aconite, &c.; and more particularly those which improve the blood, as chalybeate medicines, and different mineral waters. But these means sometimes fail, and then the essence of turpentine may be employed with advantage; although M. Teissier does not assert that it is infallible in its operation. It has been employed in the same kind of cases by Dr. Graves, and by Trousseau; but M. Teissier does not think it necessary to prescribe it in such

large doses as those physicians have done. He recommends its use in capsules, given at meal-times, each capsule containing eight drops of the essence.—*Gazette Medical de Lyon, and Brit. & For. Med.-Chir. Rev.*

Substitutes for Indian Ink.—A substance much of the same nature and applicable to the same purposes as Indian ink may be formed in the following manner:—Take of isinglass three ounces; make it into a size by dissolving over the fire in six ounces of soft water. Take then Spanish liquorice one ounce, dissolve it in two ounces of soft water over the fire in another vessel, then grind up on a slab with a heavy muller one ounce of ivory black with the Spanish liquorice mixture. Then add the same to the isinglass size while hot, and stir well together till thoroughly incorporated. Evaporate away the water, and then cast the remaining composition into a leaden mould slightly oiled, or make it up in any other convenient way. This composition will be found quite as good as the genuine article. The isinglass size mixed with the colors work well with the brush. The liquorice renders it easily dissolvable, on the rubbing up, with water, to which the isinglass alone would be somewhat reluctant; it also prevents it cracking and peeling off from the ground on which it is laid. A good Indian ink may be made from the fine soot from the flame of a lamp or candle received and collected by holding a plate over it. Mix this with the size of parchment, and it will be found to give a good deep color. Burnt rice has been by some considered a principal ingredient in the genuine Indian ink, with the addition of perfumes or other substances not essential to its qualities as an ink. —*Chemical News*, from *British Journal of Photography.*

Physiological Effects of Digitalis.—Dr. M. Galan presented to the Academy of Medicine in Havana, Cuba, a Memoir "on the Physiological Effects of Digitalis." From repeated experiments conducted by M. Martin-Magron, of Paris, Dr. Galan concludes that—

1st. Digitalis accelerates the pulse only transiently, and previous to the constant lessening which it produces on its action. 2d. This effect does not take place if the heart beats normally slow. 3d. Digitalis, like digitaline, as observed by Vulpian, causes a change in the shape of the heart. 4th. It diminishes the treating, both in organic and nervous affections of the heart. 5th. Hypertrophy is, of all affections of the heart, the most obstinate to the action of digitalis. 6th. This substance diminishes the

calibre of the bloodvessels. 7th. It excites, instead of depressing, the cerebral functions. 8th. It very seldom determines convulsions attended with spinal paralysis. 9th. Digitaline may rationally be employed in several diseases: convulsions, epilepsy, spermatorrhœa, and specially in tetanus, in preference to woovara, which otherwise acts on the nerves, and excites the spinal cord, as proved by C. Bernard.—*Annals de la Real Academia de Ciencias Medicas, Fisicas y Naturales de la Habana. Dec.* 15, 1854.

Mortality of Chicago for the month of March 1865, as compiled from the report of the Health Officer:—

DISEASES.

Accidents and Injuries,	7	Old Age,	9
Bronchitis,	5	Paralysis,	3
Cancer of Stomach,	3	Pneumonia,	27
Childbirth,	7	Remittent Fever,	1
Cholera Infantum and Diarrhœa,	8	Rubeola (Measles),	1
Consumption,	30	Scarlet Fever,	10
Convulsions,	27	Scrofula,	2
Croup or Laryngitis,	22	Small-Pox,	16
Diphtheria,	15	Spotted Fever or Cerebro-Spinal Meningitis,	5
Disease of the Heart,	5	Stillborn,	18
Dropsy,	6	Typhoid and Typhus Fever,	10
Dysentery,	2	Unknown,	9
Erysipelas,	3	Whooping-Cough,	2
Inflammation of Brain,	16		
Inflammation of Kidneys,	1	Total,	279
Inflammation of Liver,	3		
Inflammation of Stomach & Bowels	7		

Ages of the Deceased.—Under 5 years, 126; over 5 and under 10 years, 16; over 10 and under 20, 15; over 20 and under 30, 24; over 30 and under 40, 27; over 40 and under 50, 20; over 50 and under 60, 11; over 60 and under 70, 12; over 70 andunder 80, 4; over 80 and under 90, 3; stillborn, 18; unknown, 3. Total, 279.

The whole number of deaths for the same month, in the year 1864, was 345.

Foreign Medical Intelligence.—Dr. Jonas Quain, author of Quain's Anatomy, died on the 31st of January, in London, at the age of 70 years.

There are 18,000 practitioners of medicine in France, at the present time.

We are sorry to announce the recent death of the eminent English geologist, Dr. Hugh Falconer. He has been engaged, for the last few years, in investigating the bone-deposits in caves.

Dr. Livingston is planning a new journey across the African continent.

The amount of absinthe drunk in Paris may be estimated in part by the fact that Switzerland alone sent 7,500,000 gallons thither last year.

The grand prize of 5000 francs has been adjudged, by the Académie des Sciences of Paris, to M. Roussell for his History of Pelagra; and, among others, one of 2500 francs to M. Zenker for his investigations on Trichiniasis. The grand prize in surgery, for 1866, of 20,000 francs, has for its subject, "The Preservation of the Limbs by the Preservation of the Periosteum."

DEMAND FOR PHYSICIANS.—The Medical Director of Philadelphia has received an order for twenty-six contract physicians to fill the vacancies in the Twenty-fifth Army Corps. If their services should prove satisfactory at the end of their three months' contract, they will be commissioned as assistant-surgeons without an examination. The new office of the Medical Director is at the N.E. corner of Broad and Spruce Streets.

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DR. MOTT ON ARTIFICIAL LEGS.

NEW YORK, FEBRUARY 10, 1860.

When the Palmer leg was invented, I recommended it to all who needed anything of the kind, because it was an improvement on the old Anglesia leg. And now I have the pleasure of informing them that Dr. Bly has invented a leg which is a great improvement on the Palmer leg. The advantages it possesses over the Palmer leg are:—

FIRST. The ankle-joint admits of motion not only antero-posteriorly, but laterally, which allows the wearer to walk on any grade, or on rough and uneven surface, without inconvenience.

SECOND. The ankle-joint is constructed without iron, steel, or metal of any kind; in fact, little or no metal is used in the limb, which renders it very light.

THIRD. The joints, instead of being bushed with buckskin, which requires a renewal at the hands of the maker, when worn, are adjustable, and under the control of the wearer.

FOURTH. The springs are made of India-rubber, and imitate more closely the action of the muscles.

FIFTH. The action of the springs can be increased or diminished at the option of the wearer, whereby each can adjust the motions of the leg to suit his own peculiar gait.

VALENTINE MOTT, M.D.
Emeritus Prof. of Surgery and Surgical Anatomy in the University of New York.